



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

June 11, 2019

Christian Klamar  
Regulatory Liaison  
Selective Micro Technologies  
6200 Avery Road, Suite A  
Dublin, OH 43016

Subject: Notification per PRN 98-10 – Application to Add Alternate Brand Names and a Graphical Illustration  
Product Name: "Selectrocide 5G"  
EPA Registration Number: 74986-5  
Application Date: January 29, 2019  
Decision Number: 548422

Dear Mr. Klamar:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Antimicrobials Division (AD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

The following alternate brand names have been added to the product record:

- Patriot Surface Solutions 2L The Major
- Patriot Surface Solutions 10L The Colonel
- Patriot Surface Solutions 24L The General

If you have any questions, you may contact Michael Varco at 703-347-0403 or via email at [Varco.Michael@epa.gov](mailto:Varco.Michael@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "DF", is located below the "Sincerely," text.

Demson Fuller, Product Manager 32  
Regulatory Management Branch II  
Antimicrobials Division (7510P)  
Office of Pesticide Programs

TO OPEN CUT ON DOTTED LINE



ALTERNATE BRAND NAMES: Selectrocid®12G, Selectrocid®1G,  
SelectroFresh™12G Food Processing, Selectrocid 750MG

**DISINFECTANT/SANITIZER/TUBERCULOCIDE/VIRUCIDE\*/FUNGICIDE/ALGAECIDE/SLIMICIDE/DEODORIZER**

[PRODUCES 10 LITERS 500PPM CHLORINE DIOXIDE SOLUTION WHEN ACTIVATED FOR SELECTROCIDE® 5G]  
[PRODUCES 24 LITERS 500PPM CHLORINE DIOXIDE SOLUTION WHEN ACTIVATED FOR SELECTROCIDE® 12G]  
[PRODUCES 2 LITERS 500PPM CHLORINE DIOXIDE SOLUTION WHEN ACTIVATED FOR SELECTROCIDE® 1G]  
[PRODUCES 1.25 LITERS 800PPM CHLORINE DIOXIDE SOLUTION WHEN ACTIVATED FOR SELECTROCIDE® 1G]  
[PRODUCES 24 LITERS 500PPM CHLORINE DIOXIDE SOLUTION WHEN ACTIVATED FOR SELECTROFRESH® 12G  
FOOD PROCESSING]  
[PRODUCES 2.5 GAL OF 80PPM CHLORINE DIOXIDE SOLUTION WHEN ACTIVATED FOR SELECTROCIDE 750MG]

**NOTIFICATION**

74986-5

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

06/11/2019

**NOTE:** This product is registered for public health, non-public health, plant and crop, and broad aesthetic uses. Please refer accompanying technical bulletin for each application in greater detail.

[Room Temperature was effectiveness temperature for each concentration claim]

When used as directed, this chlorine dioxide-generating product is proven effective as: a **disinfectant** against *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Salmonella enterica*, methicillin-resistant *S. aureus* (MRSA), vancomycin-resistant *Enterococcus faecalis*, *Mycobacterium bovis* (TB), *Listeria monocytogenes*, and *Candida albicans*; a **fungicide** against *Trichophyton mentagrophytes* [interdigitale] (athlete's foot), a **sanitizer** against *E. coli* (ad *E. coli* O157:H7), *S. aureus*, *Salmonella typhimurium* (MDRS), *Klebsiella pneumoniae*, and *Listeria monocytogenes*; a plant and crop **bactericide** against *Penicillium digitatum*, *Botrytis* Sp, and *Fusarium solani*; and an **algicide** (*Phormidium boneri*). \***Viruses:** Corona virus, Feline Calicivirus, Hepatitis A virus, Human Immunodeficiency virus type 1 (HIV-1), Poliovirus-1, Rotavirus, Influenza-A virus, Rhinovirus type 37, Canine Parvovirus, Adenovirus type 5, Herpes Simplex virus type 2, Vaccinia virus, and Norovirus (feline calici used as testing surrogate); \*Kills Pandemic 2009 H1N1 Influenza A virus (formerly called swine flu).

See Technical Bulletin (page 5) for ATCC designation numbers of the above-listed organisms.

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

(See back panel for other cautions)

Active Ingredient:

Sodium Chlorite:.....30.5%

Other Ingredients:.....69.5%

Total:.....100.0%

[Amount of Chlorine Dioxide generated = 0.05% in 10 liters of water For Selectrocid® 5G]

[Amount of Chlorine Dioxide generated = 0.05% in 24 liters of water For Selectrocid® 12G]

[Amount of Chlorine Dioxide generated = 0.05% in 2 liters of water For Selectrocid® 1G]

[Amount of Chlorine Dioxide generated = 0.08% in 1.25 liters of water For Selectrocid® 1G]

[Amount of Chlorine Dioxide generated = 0.05% in 24 liters of water For SelectroFresh® 12G Food Processing]

[Amount of Chlorine Dioxide generated = 0.008% in 2.5 gallons of water]

Net Weight of contents.....2.52 ounces (71.30 grams)

**FIRST AID**

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**If Swallowed:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If Inhaled:** Remove victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice. Get medical attention.

Have the product container or label with you when calling a poison control center, doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC Web site: [www.npic.orst.edu](http://www.npic.orst.edu)).

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

EPA Registration No. 74986-5

EPA Establishment No. 071441-OH-004 [090569-OH-001]

**PRECAUTIONARY STATEMENTS HAZARDS TO  
HUMANS AND DOMESTIC ANIMALS**

**DANGER:** DRY INGREDIENTS: CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE AND CAUSES SKIN BURNS. HARMFUL IF SWALLOWED. WEAR PROTECTIVE EYEWEAR (GOGGLES, FACE SHIELD OR SAFETY GLASSES). WEAR PROTECTIVE GLOVES. IF CONTACT WITH DRY INGREDIENTS OCCURS, WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING, CHEWING GUM, USING TOBACCO OR USING THE TOILET. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE.

**NOTE:** THIS PRODUCT IS DESIGNED TO FULLY COMPARTMENTALIZE DRY INGREDIENTS INSIDE A HYDROPHOBIC ENVELOPE. UNDER NORMAL USE CONDITIONS AND UNLESS SEALED PRODUCT ENVELOPE IS COMPROMISED, CONTACT WITH DRY INGREDIENTS SHOULD NOT OCCUR. HOWEVER, IF SEALED PRODUCT ENVELOPE IS COMPROMISED AND THE POTENTIAL FOR CONTACT WITH DRY INGREDIENTS OCCURS, THE ABOVE PRECAUTIONARY STATEMENT SHOULD BE FOLLOWED.

**PHYSICAL OR CHEMICAL HAZARDS**

DRY SODIUM CHLORITE IS INCOMPATIBLE WITH ACIDS, REDUCING AGENTS, COMBUSTIBLE MATERIALS, SULFUR-CONTAINING RUBBER, SOLVENTS AND PAINTS. KEEP ACTIVATED SOLUTION FROM LIGHT AND HEAT. CHLORINE DIOXIDE GAS MAY CONCENTRATE IN OPEN SPACE OF CONTAINER IN WHICH 5G ENVELOPE IS ACTIVATED. ALWAYS DILUTE ACTIVATED PRODUCT IN WELL-VENTILATED AREA. DO NOT REMOVE 5G FROM CONTAINER OF WATER PRIOR TO COMPLETE GENERATION—2 HOURS AFTER IMMERSION IN WATER.

**NOTE:** For use in the institutional or commercial applications discussed below and in the accompanying Technical Bulletin.

When used as directed, on hard, non-porous surfaces (e.g., stainless steel, brass, glass, vinyl, PVC, polypropylene), this product is an effective sanitizer, disinfectant, virucide\*, plant and crop bactericide, fungicide, algacide, general-purpose antimicrobial and cleaner for use in a wide range of applications, including but not limited to: hospitals; medical & veterinary facilities; pharmaceutical production facilities, including equipment (e.g., ultracentrifuges); wineries, breweries, and beverage / bottling plants; laboratories and other clinical settings; potable and non-potable water systems and attendant equipment & tubing; restaurants and food processing plants; and greenhouses/horticultural settings. Heavily soiled surfaces must be pre-cleaned prior to treatment. Apply by mop, sponge, or sprayer, ensuring visible wetness for times specified for these applications, or apply through immersion or clean-in-place application. Wear a NIOSH/MHSA-approved respirator appropriate for chlorine dioxide when using a high-pressurized sprayer and under other circumstances detailed in the Technical Bulletin.

**SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATING SURFACES AND OBJECTS PREVIOUSLY SOILED WITH BLOOD BODY FLUIDS POTENTIALLY CONTAINING HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 (HIV-1) (at 100 ppm/10 min. contact time)**

- Wear protective barriers such as disposable latex gloves, gowns, masks, and eye coverings when handling items soiled with blood or body fluids.
- Blood and other body fluids must be thoroughly cleaned from surfaces and objects before application of Selectocide 5G.
- Blood, other body fluids, and contaminated cleaning materials should be autoclaved and disposed of according to local regulations for infectious waste disposal.

**DIRECTIONS FOR USE:** IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH THE LABELING. READ THE ENTIRE LABEL AND USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND USE.

**FOR PRODUCT SIZE 71.30 GRAMS.**

**Selectocide® 5G:**

1. Open the package, ensuring the 5G envelope inside is not cut. Discard desiccant.
2. To achieve an aqueous solution of 500 ppm chlorine dioxide, immerse (submerge) the 5G envelope in container with 10 liters of water. [To achieve an aqueous solution of 100 ppm chlorine dioxide directly, immerse (submerge) the 5G envelope in container with 50 liters of water.] Close/seal container tightly. Container interior should be dark and resistant to oxidation. See Technical Bulletin for recommendations regarding amount of water, contact times and dilutions for specific applications, and recommended container specifications.
3. **WAIT AT LEAST 2 HOURS BEFORE USE TO ENSURE SOLUTION REACHES FULL STRENGTH.**  
Do NOT REMOVE 5G FROM CONTAINER OF WATER PRIOR TO 2 HOURS.
4. Remove 5G from container and mix gently before use. Work in well-ventilated area and avoid inhaling fumes. Wear protective gloves if hands will come into contact with activated solution during dilution or application; wear NIOSH/MHSA-approved respirator for chlorine dioxide if working with stock (500 ppm) solution in open container. Remove envelope from container within 24 hours after activation. Do not reuse the 5G. Discard envelope according to instructions below. Before use, verify concentration with *Selective Micro® Chlorine Dioxide Test Strips* to ensure appropriate concentration (see Technical Bulletin for directions if *Test Strips* indicate lower-than-desired concentration).
5. Activate prior to expiration date stamped on package. Store unused solution (and/or subsequent dilutions) in a dark, oxidation-resistant closed or sealed container. Record activation date and concentration on stick-on label shipped with the product, and affix to storage container. Store activated solution in cool place out of direct sunlight (do not store in refrigerator dedicated to food storage).  
Note: Verify concentration using *Selective Micro® Test Strips*. For concentrations above 10ppm, use *Selective Micro® Wide Range* test strips; for concentrations of 10ppm or less, use *Selective Micro® Low Range* test strips.

**USE THE FOLLOWING GENERAL DILUTIONS AND TABLE**

## MASTER LABEL [Bracketed Language is Optional]

General Dilution Instructions: All dilutions begin with a stock solution at a nominal concentration of 500 ppm, except when the product is activated directly to the application concentration (see technical bulletin). Except where otherwise directed, or for other use concentrations (see technical bulletin), use the following dilution instructions to achieve the use concentration indicated:

To Achieve Use Concentration of:	Use Dilution Device or Sprayer With a Dilution Ratio of:
100 ppm	1:5 (one part 500 ppm solution to 4 parts water)
50 ppm	1:10 (one part 500 ppm solution to 9 parts water)
20 ppm	1:25 (one part 500 ppm solution to 24 parts water)
5 ppm	1:100 (one part 500 ppm solution to 99 parts water)
0.25 ppm	1:2,000 (one part 500 ppm solution to 1,999 parts water)

### **FOR PRODUCT SIZE 153.6 GRAMS, Selectrocide® 12G:**

1. Open the package, ensuring the 12G envelope inside is not cut. Discard desiccant.
2. To achieve an aqueous solution of 500 ppm chlorine dioxide, immerse (submerge) the 12G envelope in container with 24 liters of water. [To achieve an aqueous solution of 100 ppm chlorine dioxide directly, immerse (submerge) the 12G envelope in container with 120 liters of water.] Close/seal container tightly. Container interior should be dark and resistant to oxidation. See Technical Bulletin for recommendations regarding amount of water, contact times and dilutions for specific applications, and recommended container specifications.
3. **WAIT AT LEAST 2 HOURS BEFORE USE TO ENSURE SOLUTION REACHES STANDARD FULL STRENGTH 500 PPM.** MAY REMOVE FROM CONTAINER AFTER 2 HOURS FOR STANDARD LABEL USE.
4. Remove 12G from container and mix gently before use. Work in well-ventilated area and avoid inhaling fumes. Wear protective gloves if hands will come into contact with activated solution during dilution or application; wear NIOSH/MHSA-approved respirator for chlorine dioxide if working with stock (500 ppm) solution in open container. Remove envelope from container within 24 hours after activation. Do not reuse the 12G. Discard envelope according to instructions below. Before use, verify concentration with *Selective Micro® Chlorine Dioxide Test Strips* to ensure appropriate concentration (see Technical Bulletin for directions if *Test Strips* indicate lower-than-desired concentration).
5. Activate prior to expiration date stamped on package. Store unused solution (and/or subsequent dilutions) in a dark, oxidation-resistant closed or sealed container. Record activation date and concentration on stick-on label shipped with the product, and affix to storage container. Store activated solution in cool place out of direct sunlight (do not store in refrigerator dedicated to food storage).  
Note: Verify concentration using Selective Micro® Test Strips. For concentrations above 10ppm, use Selective Micro® Wide Range test strips; for concentrations of 10ppm or less, use Selective Micro® Low Range test strips.

### **USE THE FOLLOWING GENERAL DILUTIONS AND TABLE**

General Dilution Instructions: All dilutions begin with a stock solution at a nominal concentration of 500 ppm, except when the product is activated directly to the application concentration (see technical bulletin). Except where otherwise directed, or for other use concentrations (see technical bulletin), use the following dilution instructions to achieve the use concentration indicated:

To Achieve Use Concentration of:	Standard Use Dilution Device or Sprayer With a Dilution Ratio of:
100 ppm	1:5 (one part 500 ppm solution to 4 parts water)
50 ppm	1:10 (one part 500 ppm solution to 9 parts water)
20 ppm	1:25 (one part 500 ppm solution to 24 parts water)
5 ppm	1:100 (one part 500 ppm solution to 99 parts water)
0.25 ppm	1:2,000 (one part 500 ppm solution to 1,999 parts water)

### **FOR PRODUCT SIZE 12.34 GRAMS, Selectrocide® 1G:**

1. Open the package, ensuring the 1G envelope inside is not cut. Discard desiccant.
2. To achieve an aqueous solution of 500 ppm chlorine dioxide, immerse (submerge) the 1G envelope in container with 2 liters of water. [To achieve an aqueous solution of 100 ppm chlorine dioxide directly, immerse (submerge) the 1G envelope in container with 10 liters of water.] Close/seal container tightly. Container interior should be dark and resistant to oxidation. See Technical Bulletin for recommendations regarding amount of water, contact times and dilutions for specific applications, and recommended container specifications.
3. **WAIT AT LEAST 2 HOURS BEFORE USE TO ENSURE SOLUTION REACHES STANDARD FULL STRENGTH 500 PPM.** **WAIT AT LEAST 4 HOURS BEFORE USE TO ENSURE SOLUTION REACHES MAXIMUM STRENGTH 800 PPM.** MAY REMOVE FROM CONTAINER AFTER 2 HOURS FOR STANDARD LABEL USE. MAY REMOVE FROM CONTAINER AFTER 4 HOURS FOR LABEL USE as a bactericide against carbapenem-resistant enterobacteriaceae: *klebsiella pneumoniae* (CRKP).
4. Remove 1G from container and mix gently before use. Work in well-ventilated area and avoid inhaling fumes. Wear protective gloves if hands will come into contact with activated solution during dilution or application; wear NIOSH/MHSA-approved respirator for chlorine dioxide if working with stock (500 ppm) solution in open container. Remove envelope from container within 24 hours after activation. Do not reuse the 1G. Discard envelope according to instructions below. Before use, verify concentration with *Selective Micro® Chlorine Dioxide Test Strips* to ensure appropriate concentration (see Technical Bulletin for directions if *Test Strips* indicate lower-than-desired concentration).
5. Activate prior to expiration date stamped on package. Store unused solution (and/or subsequent dilutions), in a dark, oxidation-resistant closed or sealed container. Record activation date and concentration on stick-on label shipped with the product, and affix to storage container. Store activated solution in cool place out of direct sunlight (do not store in refrigerator dedicated to food storage). Note: Verify concentration using Selective Micro® Test Strips. For concentrations above 10ppm, use Selective Micro® Wide Range test strips; for concentrations of 10ppm or less, use Selective Micro® Low Range test strips.

### **USE THE FOLLOWING GENERAL DILUTIONS AND TABLE**

General Dilution Instructions: All dilutions begin with a stock solution at a nominal concentration of 500 ppm, except when the product is activated directly to the application concentration (see technical bulletin). Except where otherwise directed, or for other use concentrations (see technical bulletin), use the following dilution instructions to achieve the use concentration indicated:

To Achieve Use Concentration of:	Standard Use Dilution Device or Sprayer With a Dilution Ratio of:
100 ppm	1:5 (one part 500 ppm solution to 4 parts water)

MASTER LABEL [Bracketed Language is Optional]

50 ppm	1:10 (one part 500 ppm solution to 9 parts water)
20 ppm	1:25 (one part 500 ppm solution to 24 parts water)
5 ppm	1:100 (one part 500 ppm solution to 99 parts water)
0.25 ppm	1:2,000 (one part 500 ppm solution to 1,999 parts water)
To Achieve Use Concentration of:	Bactericide against carbapenem-resistant Enterobacteriaceae: Klebsiella pneumoniae (CRKP)
800 ppm	Generate (1) 1G in 1.25 liters of water for 4 hours

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TO OPEN CUT ON DOTTED  
LINE



**DISINFECTANT/SANITIZER/TUBERCULOCIDE/VIRUCIDE\***  
**FUNGICIDE/ALGAECIDE/SLIMICIDE/DEODORIZER**

When used as directed, this chlorine dioxide-generating product is proven effective as: a **disinfectant** against *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Salmonella enterica*, methicillin-resistant *S. aureus* (MRSA), vancomycin-resistant *Enterococcus faecalis*, *Mycobacterium bovis* (TB), *Listeria monocytogenes*, and *Candida albicans*; a **fungicide** against *Trichophyton mentagrophytes* [interdigitale] (athlete's foot), a **sanitizer** against *E. coli* (ad *E. coli* O157:H7), *S. aureus*, *Salmonella typhimurium* (MDRS), *Klebsiella pneumoniae*, and *Listeria monocytogenes*; a plant and crop **bactericide** against *Penicillium digitatum*, *Botrytis Sp.*, and *Fusarium solani*; and an **algaecide** (*Phormidium boneri*). **\*Viruses:** Corona virus, Feline Calicivirus, Hepatitis A virus, Human Immunodeficiency virus type 1 (HIV-1), Poliovirus-1, Rotavirus, Influenza-A virus, Rhinovirus type 37, Canine Parvovirus, Adenovirus type 5, Herpes Simplex virus type 2, Vaccinia virus, and Norovirus (feline calici used as testing surrogate); \*Kills Pandemic 2009 H1N1 Influenza A virus (formerly called swine flu). See Technical Bulletin (page 5) for ATCC designation numbers of the above-listed organisms.

**KEEP OUT OF REACH OF  
CHILDREN**

**DANGER**

(See back panel for other  
cautions)

Active

Ingredient:

Sodium

Chlorite:.....30.5%

Other

Ingredients:.....69.5%

Total:.....100.0%

*Amount of Chlorine Dioxide generated = 0.05% in 24 liters of water*

Net Weight of contents.....5.41 ounces (153.6 grams)

#### **FIRST AID**

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**If Swallowed:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If Inhaled:** Remove victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice. Get medical attention.

Have the product container or label with you when calling a poison control center, doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC Web site: [www.npic.orst.edu](http://www.npic.orst.edu)).

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

EPA Registration No. 74986-5

EPA Establishment No. 071441-OH-004 [090569-OH-001]

Manufactured for: Selective Micro Technologies, LLC 6200 Avery Rd. Suite A, Dublin, OH 43016 [www.selectivemicro.com](http://www.selectivemicro.com)

#### **PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER:** DRY INGREDIENTS: CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE AND CAUSES SKIN BURNS. HARMFUL IF SWALLOWED. WEAR PROTECTIVE EYEWEAR (GOGGLES, FACE SHIELD OR SAFETY GLASSES). WEAR PROTECTIVE GLOVES. IF CONTACT WITH DRY INGREDIENTS OCCURS, WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING, CHEWING GUM, USING TOBACCO OR USING THE TOILET. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE.

**NOTE:** THIS PRODUCT IS DESIGNED TO FULLY COMPARTMENTALIZE DRY INGREDIENTS INSIDE A HYDROPHOBIC ENVELOPE. UNDER NORMAL USE CONDITIONS AND UNLESS SEALED PRODUCT ENVELOPE IS COMPROMISED, CONTACT WITH DRY INGREDIENTS SHOULD NOT OCCUR. HOWEVER, IF SEALED PRODUCT ENVELOPE IS COMPROMISED AND THE POTENTIAL FOR CONTACT WITH DRY INGREDIENTS OCCURS, THE ABOVE PRECAUTIONARY HANDLING STATEMENT SHOULD BE FOLLOWED.



## **PHYSICAL OR CHEMICAL HAZARDS**

DRY SODIUM CHLORITE IS INCOMPATIBLE WITH ACIDS, REDUCING AGENTS, COMBUSTIBLE MATERIALS, SULFUR-CONTAINING RUBBER, SOLVENTS AND PAINTS. KEEP ACTIVATED SOLUTION FROM LIGHT AND HEAT. CHLORINE DIOXIDE GAS MAY CONCENTRATE IN OPEN SPACE OF CONTAINER IN WHICH 12G ENVELOPE IS ACTIVATED. ALWAYS DILUTE ACTIVATED PRODUCT IN WELL-VENTILATED AREA. DO NOT REMOVE 12G FROM CONTAINER OF WATER PRIOR TO COMPLETE GENERATION—2 HOURS AFTER IMMERSION IN WATER.

**NOTE: For use in the institutional or commercial applications discussed below and in the accompanying Technical Bulletin.**

When used as directed, on hard, non-porous surfaces (e.g., stainless steel, brass, glass, vinyl, PVC, polypropylene), this product is an effective sanitizer, disinfectant, virucide\*, plant and crop bactericide, fungicide, algacide, general-purpose antimicrobial and cleaner for use in a wide range of applications, including but not limited to: hospitals; medical & veterinary facilities; pharmaceutical production facilities, including equipment (e.g., ultracentrifuges); wineries, breweries, and beverage / bottling plants; laboratories and other clinical settings; potable and non-potable water systems and attendant equipment & tubing; restaurants and food processing plants; and greenhouses/horticultural settings. Heavily soiled surfaces must be pre-cleaned prior to treatment. Apply by mop, sponge, or sprayer, ensuring visible wetness for times specified for these applications, or apply through immersion or clean-in-place application. Wear a NIOSH/MHSA-approved respirator appropriate for chlorine dioxide when using a high-pressurized sprayer and under other circumstances detailed in the Technical Bulletin.

## **SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATING SURFACES AND OBJECTS PREVIOUSLY SOILED WITH BLOOD BODY FLUIDS POTENTIALLY CONTAINING HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 (HIV-1) (at 100 ppm/10 min. contact time)**

- Wear protective barriers such as disposable latex gloves, gowns, masks, and eye coverings when handling items soiled with blood or body fluids.
- Blood and other body fluids must be thoroughly cleaned from surfaces and objects before application of Selectocide 12G.
- Blood, other body fluids, and contaminated cleaning materials should be autoclaved and disposed of according to local regulations for infectious waste disposal.

**DIRECTIONS FOR USE:** IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH THE LABELING. READ THE ENTIRE LABEL AND USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND USE.

1. Open the package, ensuring the 12G envelope inside is not cut. Discard desiccant.
2. To achieve an aqueous solution of 500 ppm chlorine dioxide, immerse (submerge) the 12G envelope in container with 24 liters of water. [To achieve an aqueous solution of 100 ppm chlorine dioxide directly, immerse (submerge) the 12G envelope in container with 120 liters of water.] Close/seal container tightly. Container interior should be dark and resistant to oxidation. See Technical Bulletin for recommendations regarding amount of water, contact times and dilutions for specific applications, and recommended container specifications.
3. **WAIT AT LEAST 2 HOURS BEFORE USE TO ENSURE SOLUTION REACHES STANDARD FULL STRENGTH 500 PPM.** MAY REMOVE FROM CONTAINER AFTER 2 HOURS FOR STANDARD LABEL USE.
4. Remove 12G from container and mix gently before use. Work in well-ventilated area and avoid inhaling fumes. Wear protective gloves if hands will come into contact with activated solution during dilution or application; wear NIOSH/MHSA-approved respirator for chlorine dioxide if working with stock (500 ppm) solution in open container. Remove envelope from container within 24 hours after activation. Do not reuse the 12G. Discard envelope according to instructions below. Before use, verify concentration with *Selective Micro® Chlorine Dioxide Test Strips* to ensure appropriate concentration (see Technical Bulletin for directions if *Test Strips* indicate lower-than-desired concentration).
5. Activate prior to expiration date stamped on package. Store unused solution (and/or subsequent dilutions) in a dark, oxidation-resistant closed or sealed container. Record activation date and concentration on stick-on label shipped with the product, and affix to storage container. Store activated solution in cool place out of direct sunlight (do not store in refrigerator dedicated to food storage).  
Note: Verify concentration using *Selective Micro® Test Strips*. For concentrations above 10ppm, use *Selective Micro® Wide Range* test strips; for concentrations of 10ppm or less, use *Selective Micro® Low Range* test strips.

## **USE THE FOLLOWING GENERAL DILUTIONS AND TABLE**

General Dilution Instructions: All dilutions begin with a stock solution at a nominal concentration of 500 ppm, except when the product is activated directly to the application concentration (see technical bulletin). Except where otherwise directed, or for other use concentrations (see technical bulletin), use the following dilution instructions to achieve the use concentration indicated:

To Achieve Use Concentration of:	Standard Use Dilution Device or Sprayer With a Dilution Ratio of:
100 ppm	1:5 (one part 500 ppm solution to 4 parts water)
50 ppm	1:10 (one part 500 ppm solution to 9 parts water)
20 ppm	1:25 (one part 500 ppm solution to 24 parts water)
5 ppm	1:100 (one part 500 ppm solution to 99 parts water)
0.25 ppm	1:2,000 (one part 500 ppm solution to 1,999 parts water)

PLEASE REFERENCE MASTER LABEL TECHNICAL BULLETIN FOR DETAILED USE PATTERNS AND DILUTION RATES.

## **STORAGE AND DISPOSAL**

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE AND DISPOSAL. STORE IN COOL, DRY, VENTILATED AREA. STORE BELOW 50° C (122° F). KEEP PRODUCT OUT OF DIRECT SUNLIGHT. STORE SEPARATELY FROM WATER AND ACIDS. IF PACKAGE RUPTURES AND CONTENTS SPILL, DO NOT PERMIT CONTACT OF CONTENTS WITH ORGANIC MATERIALS (FOR EXAMPLE: CLOTHING OR COMBUSTIBLE MATERIALS) OR ACIDS. PESTICIDE WASTES ARE TOXIC. IMPROPER DISPOSAL OF EXCESS DRY PESTICIDE IS A VIOLATION OF FEDERAL LAW. IF THIS PRODUCT CANNOT BE USED ACCORDING TO LABEL INSTRUCTIONS, CONTACT YOUR STATE PESTICIDE OR ENVIRONMENTAL CONTROL AGENCY, OR THE HAZARDOUS WASTE REPRESENTATIVE AT THE NEAREST EPA REGIONAL OFFICE FOR GUIDANCE. NONREFILLABLE CONTAINER. DO NOT REUSE OR REFILL THIS CONTAINER. OFFER FOR RECYCLING, IF AVAILABLE, OR DISPOSE OF SPENT ENVELOPE IN A SANITARY LANDFILL OR BY INCINERATION, OR IF ALLOWED BY STATE AND LOCAL AUTHORITIES, BY BURNING. IF BURNED, STAY OUT OF SMOKE.

**WARRANTY STATEMENT:** The Company warrants the product to be free from defects in material and workmanship. THE COMPANY MAKES NO WARRANTY THAT THE GOODS SHALL BE MERCHANTABLE. THE COMPANY MAKES NO WARRANTY, EXPRESSED OR IMPLIED, EXCEPT SUCH AS IS EXPRESSLY SET FORTH HEREIN. The Company shall not be liable for any incidental or consequential damages for any breach of warranty. The Company's liability for any breach of warranty shall be limited to the purchase price of the product.

TO OPEN CUT ON DOTTED  
LINE

**DISINFECTANT/SANITIZER/TUBERCULOCIDE/VIRUCIDE\*/FUNGICIDE/ALGAECIDE/SLIMICIDE/DEODORIZER**

When used as directed, this chlorine dioxide-generating product is proven effective as: a **disinfectant** against *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Salmonella enterica*, methicillin-resistant *S. aureus* (MRSA), vancomycin-resistant *Enterococcus faecalis*, *Mycobacterium bovis* (TB), *Listeria monocytogenes*, and *Candida albicans*; a **fungicide** against *Trichophyton mentagrophytes* [interdigitale] (athlete's foot), a **sanitizer** against *E. coli* (ad *E. coli* O157:H7), *S. aureus*, *Salmonella typhimurium* (MDRS), *Klebsiella pneumoniae*, and *Listeria monocytogenes*; a plant and crop **bactericide** against *Penicillium digitatum*, *Botrytis Sp.*, and *Fusarium solani*; and an **algaecide** (*Phormidium boneri*). **\*Viruses:** Corona virus, Feline Calicivirus, Hepatitis A virus, Human Immunodeficiency virus type 1 (HIV-1), Poliovirus-1, Rotavirus, Influenza-A virus, Rhinovirus type 37, Canine Parvovirus, Adenovirus type 5, Herpes Simplex virus type 2, Vaccinia virus, and Norovirus (feline calici used as testing surrogate); \*Kills Pandemic 2009 H1N1 Influenza A virus (formerly called swine flu).

See Technical Bulletin (page 5) for ATCC designation numbers of the above-listed organisms.

**KEEP OUT OF REACH OF  
CHILDREN****DANGER**

(See back panel for other  
cautions)

Active  
Ingredient:  
Sodium  
Chlorite:.....30.5%  
Other  
Ingredients:.....69.5%  
Total:.....100.0%

Amount of Chlorine Dioxide generated = 0.05% in 2 liters of water

Net Weight of contents.....0.44 ounces (12.34 grams)

**FIRST AID**

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**If Swallowed:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If Inhaled:** Remove victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice. Get medical attention.

Have the product container or label with you when calling a poison control center, doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC Web site: [www.npic.orst.edu](http://www.npic.orst.edu)).

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

EPA Registration No. 74986-5

EPA Establishment No. 071441-OH-004 [090569-OH-001]

Manufactured for: Selective Micro Technologies, LLC 6200 Avery Rd. Suite A, Dublin, OH 43016 [www.selectivemicro.com](http://www.selectivemicro.com)

**PRECAUTIONARY STATEMENTS HAZARDS TO  
HUMANS AND DOMESTIC ANIMALS**

**DANGER:** DRY INGREDIENTS: CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE AND CAUSES SKIN BURNS. HARMFUL IF SWALLOWED. WEAR PROTECTIVE EYEWEAR (GOGGLES, FACE SHIELD OR SAFETY GLASSES). WEAR PROTECTIVE GLOVES. IF CONTACT WITH DRY INGREDIENTS OCCURS, WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING, CHEWING GUM, USING TOBACCO OR USING THE TOILET. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE.

**NOTE:** THIS PRODUCT IS DESIGNED TO FULLY COMPARTMENTALIZE DRY INGREDIENTS INSIDE A HYDROPHOBIC ENVELOPE. UNDER NORMAL USE CONDITIONS AND UNLESS SEALED PRODUCT ENVELOPE IS COMPROMISED, CONTACT WITH DRY INGREDIENTS SHOULD NOT OCCUR. HOWEVER, IF SEALED PRODUCT ENVELOPE IS COMPROMISED AND THE POTENTIAL FOR CONTACT WITH DRY INGREDIENTS OCCURS, THE ABOVE PRECAUTIONARY HANDLING STATEMENT SHOULD BE FOLLOWED.



**PHYSICAL OR CHEMICAL HAZARDS**

DRY SODIUM CHLORITE IS INCOMPATIBLE WITH ACIDS, REDUCING AGENTS, COMBUSTIBLE MATERIALS, SULFUR-CONTAINING RUBBER, SOLVENTS AND PAINTS. KEEP ACTIVATED SOLUTION FROM LIGHT AND HEAT. CHLORINE DIOXIDE GAS MAY CONCENTRATE IN OPEN SPACE OF CONTAINER IN WHICH 1G ENVELOPE IS ACTIVATED. ALWAYS DILUTE ACTIVATED PRODUCT IN WELL-VENTILATED AREA. DO NOT REMOVE 1G FROM CONTAINER OF WATER PRIOR TO COMPLETE GENERATION—2 HOURS OR 4 HOURS AFTER IMMERSION IN WATER.

**NOTE: For use in the institutional or commercial applications discussed below and in the accompanying Technical Bulletin.**

When used as directed, on hard, non-porous surfaces (e.g., stainless steel, brass, glass, vinyl, PVC, polypropylene), this product is an effective sanitizer, disinfectant, virucide\*, plant and crop bactericide, fungicide, algacide, general-purpose antimicrobial and cleaner for use in a wide range of applications, including but not limited to: hospitals; medical & veterinary facilities; pharmaceutical production facilities, including equipment (e.g., ultracentrifuges); wineries, breweries, and beverage / bottling plants; laboratories and other clinical settings; potable and non-potable water systems and attendant equipment & tubing; restaurants and food processing plants; and greenhouses/horticultural settings. Heavily soiled surfaces must be pre-cleaned prior to treatment. Apply by mop, sponge, or sprayer, ensuring visible wetness for times specified for these applications, or apply through immersion or clean-in-place application. Wear a NIOSH/MHSA-approved respirator appropriate for chlorine dioxide when using a high-pressurized sprayer and under other circumstances detailed in the Technical Bulletin.

**SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATING SURFACES AND OBJECTS PREVIOUSLY SOILED WITH BLOOD BODY FLUIDS POTENTIALLY CONTAINING HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 (HIV-1) (at 100 ppm/10 min. contact time)**

- Wear protective barriers such as disposable latex gloves, gowns, masks, and eye coverings when handling items soiled with blood or body fluids.
- Blood and other body fluids must be thoroughly cleaned from surfaces and objects before application of Selectocide 1G.
- Blood, other body fluids, and contaminated cleaning materials should be autoclaved and disposed of according to local regulations for infectious waste disposal.

**DIRECTIONS FOR USE: IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH THE LABELING. READ THE ENTIRE LABEL AND USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND USE.**

1. Open the package, ensuring the 1G envelope inside is not cut. Discard desiccant.
2. To achieve an aqueous solution of 500 ppm chlorine dioxide, immerse (submerge) the 1G envelope in container with 2 liters of water. [To achieve an aqueous solution of 100 ppm chlorine dioxide directly, immerse (submerge) the 1G envelope in container with 10 liters of water.] Close/seal container tightly. Container interior should be dark and resistant to oxidation. See Technical Bulletin for recommendations regarding amount of water, contact times and dilutions for specific applications, and recommended container specifications.
3. **WAIT AT LEAST 2 HOURS BEFORE USE TO ENSURE SOLUTION REACHES STANDARD FULL STRENGTH 500 PPM. WAIT AT LEAST 4 HOURS BEFORE USE TO ENSURE SOLUTION REACHES MAXIMUM STRENGTH 800 PPM.** MAY REMOVE FROM CONTAINER AFTER 2 HOURS FOR STANDARD LABEL USE. MAY REMOVE FROM CONTAINER AFTER 4 HOURS FOR LABEL USE as a bactericide against carbapenem-resistant enterobacteriaceae: klebsiella pneumoniae (CRKP).
4. Remove 1G from container and mix gently before use. Work in well-ventilated area and avoid inhaling fumes. Wear protective gloves if hands will come into contact with activated solution during dilution or application; wear NIOSH/MHSA-approved respirator for chlorine dioxide if working with stock (500 ppm) solution in open container. Remove envelope from container within 24 hours after activation. Do not reuse the 1G. Discard envelope according to instructions below. Before use, verify concentration with *Selective Micro® Chlorine Dioxide Test Strips* to ensure appropriate concentration (see Technical Bulletin for directions if *Test Strips* indicate lower-than-desired concentration).
5. Activate prior to expiration date stamped on package. Store unused solution (and/or subsequent dilutions), in a dark, oxidation-resistant closed or sealed container. Record activation date and concentration on stick-on label shipped with the product, and affix to storage container. Store activated solution in cool place out of direct sunlight (do not store in refrigerator dedicated to food storage).  
Note: Verify concentration using Selective Micro® Test Strips. For concentrations above 10ppm, use Selective Micro® Wide Range test strips; for concentrations of 10ppm or less, use Selective Micro® Low Range test strips.

**USE THE FOLLOWING GENERAL DILUTIONS AND TABLE**  
General Dilution Instructions: All dilutions begin with a stock solution at a nominal concentration of 500 ppm, except when the product is activated directly to the application concentration (see technical bulletin). Except where otherwise directed, or for other use concentrations (see technical bulletin), use the following dilution instructions to achieve the use concentration indicated:

To Achieve Use Concentration of:	Standard Use Dilution Device or Sprayer With a Dilution Ratio of:
100 ppm	1:5 (one part 500 ppm solution to 4 parts water)
50 ppm	1:10 (one part 500 ppm solution to 9 parts water)
20 ppm	1:25 (one part 500 ppm solution to 24 parts water)
5 ppm	1:100 (one part 500 ppm solution to 99 parts water)
0.25 ppm	1:2,000 (one part 500 ppm solution to 1,999 parts water)
To Achieve Use Concentration of:	Bactericide against carbapenem-resistant Enterobacteriaceae: Klebsiella pneumoniae (CRKP)
800 ppm	Generate (1) 1G in 1.25 liters of water for 4 hours

**PEASE REFERENCE MASTER LABEL TECHNICAL BULLETIN FOR DETAILED USE PATTERNS AND DILUTION RATES.**

**STORAGE AND DISPOSAL**

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE AND DISPOSAL. STORE IN COOL, DRY, VENTILATED AREA. STORE BELOW 50° C (122° F). KEEP PRODUCT OUT OF DIRECT SUNLIGHT. STORE SEPARATELY FROM WATER AND ACIDS. IF PACKAGE RUPTURES AND CONTENTS SPILL, DO NOT PERMIT CONTACT OF CONTENTS WITH ORGANIC MATERIALS (FOR EXAMPLE: CLOTHING OR COMBUSTIBLE MATERIALS) OR ACIDS. PESTICIDE WASTES ARE TOXIC. IMPROPER DISPOSAL OF EXCESS DRY PESTICIDE IS A VIOLATION OF FEDERAL LAW. IF THIS PRODUCT CANNOT BE USED ACCORDING TO LABEL INSTRUCTIONS, CONTACT YOUR STATE PESTICIDE OR ENVIRONMENTAL CONTROL AGENCY, OR THE HAZARDOUS WASTE REPRESENTATIVE AT THE NEAREST EPA REGIONAL OFFICE FOR GUIDANCE. NONREFILLABLE CONTAINER. DO NOT REUSE OR REFILL THIS CONTAINER. OFFER FOR RECYCLING, IF AVAILABLE, OR DISPOSE OF SPENT ENVELOPE IN A SANITARY LANDFILL OR BY INCINERATION, OR IF ALLOWED BY STATE AND LOCAL AUTHORITIES, BY BURNING. IF BURNED, STAY OUT OF SMOKE.

**WARRANTY STATEMENT:** The Company warrants the product to be free from defects in material and workmanship. THE COMPANY MAKES NO WARRANTY THAT THE GOODS SHALL BE MERCHANTABLE. THE COMPANY MAKES NO WARRANTY, EXPRESSED OR IMPLIED, EXCEPT SUCH AS IS EXPRESSLY SET FORTH HEREIN. The Company shall not be liable for any incidental or consequential damages for any breach of warranty. The Company's liability for any breach of warranty shall be limited to the purchase price of the product.

----- TEAR HERE -----

# Selectrocid<sup>®</sup>

## —750MG—

### DISINFECTANT/SANITIZER/TUBERCULOCIDE/VIRUCIDE\* FUNGICIDE/ALGAECIDE/SLIMICIDE/DEODORIZER/BACTERICIDE

[To clean and remove organic matter from fluid lines and reservoirs. To clean and remove organic matter in holding tanks, water reservoirs, and distribution lines in water systems and water purification systems.]

When used as directed, this chlorine dioxide-generating product is proven effective as: a **disinfectant** against *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Salmonella enterica*, methicillin-resistant *S. aureus* (MRSA), vancomycin-resistant *Enterococcus faecalis*, *Mycobacterium bovis* (TB), *Listeria monocytogenes*, and *Candida albicans*; a **fungicide** against *Trichophyton mentagrophytes* [interdigitale] (athlete's foot), a **sanitizer** against *E. coli* (ad *E. coli* O157:H7), *S. aureus*, *Salmonella typhimurium* (MDRS), *Klebsiella pneumonia*, and *Listeria monocytogenes*; a plant and crop **bactericide** against *Penicillium digitatum*, *Botrytis* Sp, and *Fusarium solani*; and an **algaecide** (*Phormidium boneri*). \***Viruses:** Corona virus, Feline Calicivirus, Hepatitis A virus, Human Immunodeficiency virus type 1 (HIV-1), Poliovirus-1, Rotavirus, Influenza-A virus, Rhinovirus type 37, Canine Parvovirus, Adenovirus type 5, Herpes Simplex virus type 2, Vaccinia virus, and Norovirus (feline calici used as testing surrogate); \*Kills Pandemic 2009 H1N1 Influenza A virus (formerly called swine flu). See Technical Bulletin (page 5) for ATCC designation numbers of the above-listed organisms.

### KEEP OUT OF REACH OF CHILDREN DANGER

(See back panel  
for other cautions)

Active Ingredient: Sodium chlorite	30.5%
Other Ingredients	69.5%
Total:	100.0%

*Amount of Chlorine Dioxide generated = 0.008% in 2.5 gallons of water*

Net Weight of reactants.....	12.52 grams
Net Weight of contents (reactants plus weighted sink).....	62.52 grams

#### FIRST AID

<b>If in Eyes:</b> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
<b>If on Skin or Clothing:</b> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
<b>If Swallowed:</b> Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
<b>If Inhaled:</b> Remove victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice. Get medical attention.

Have the product container or label with you when calling a poison control center, doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC Web site: [www.npic.orst.edu](http://www.npic.orst.edu)).

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

## MASTER LABEL [Bracketed Language is Optional]

EPA Registration No. 74986-5

EPA Establishment No. 090569-OH-001

Manufactured for: Selective Micro Technologies, LLC  
[www.selectivemicro.com](http://www.selectivemicro.com)

6200 Avery Rd. Suite A

Dublin, OH 43016

### **PRECAUTIONARY STATEMENTS**

#### **HAZARDS TO HUMANS AND**

#### **DOMESTIC ANIMALS**

**DANGER:** DRY INGREDIENTS: CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE AND CAUSES SKIN BURNS. HARMFUL IF SWALLOWED. WEAR PROTECTIVE EYEWEAR (GOGGLES, FACE SHIELD OR SAFETY GLASSES). WEAR PROTECTIVE GLOVES. IF CONTACT WITH DRY INGREDIENTS OCCURS, WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING, CHEWING GUM, USING TOBACCO OR USING THE TOILET. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE.

#### **PHYSICAL OR CHEMICAL HAZARDS**

DRY SODIUM CHLORITE IS INCOMPATIBLE WITH ACIDS, REDUCING AGENTS, COMBUSTIBLE MATERIALS, SULFUR-CONTAINING RUBBER, SOLVENTS AND PAINTS. KEEP ACTIVATED SOLUTION FROM LIGHT AND HEAT. CHLORINE DIOXIDE GAS MAY CONCENTRATE IN OPEN SPACE OF CONTAINER IN WHICH 750MG ENVELOPE IS ACTIVATED. ALWAYS DILUTE ACTIVATED PRODUCT IN WELL-VENTILATED AREA. DO NOT REMOVE 750MG FROM CONTAINER OF WATER PRIOR TO COMPLETE GENERATION—1 HOUR AFTER IMMERSION IN WATER.

**NOTE:** For use in the institutional or commercial applications discussed below and in the accompanying Technical Bulletin.

When used as directed, on hard, non-porous surfaces (e.g., stainless steel, brass, glass, vinyl, PVC, polypropylene), this product is an effective sanitizer, disinfectant, virucide\*, plant and crop bactericide, fungicide, algacide, general-purpose antimicrobial and cleaner for use in a wide range of applications, including but not limited to: hospitals; medical & veterinary facilities; pharmaceutical production facilities, including equipment (e.g., ultracentrifuges); wineries, breweries, and beverage / bottling plants; laboratories and other clinical settings; potable and non-potable water systems and attendant equipment & tubing; restaurants and food processing plants; and greenhouses/horticultural settings. Heavily soiled surfaces must be pre-cleaned prior to treatment. Apply by mop, sponge, or sprayer, ensuring visible wetness for times specified for these applications, or apply through immersion or clean-in-place application. Wear a NIOSH/MHSA-approved respirator appropriate for chlorine dioxide when using a high-pressurized sprayer and under other circumstances detailed in the Technical Bulletin.

#### **SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATING SURFACES AND OBJECTS PREVIOUSLY SOILED WITH BLOOD BODY FLUIDS POTENTIALLY CONTAINING HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 (HIV-1) (at 100 ppm/10 min. contact time)**

- Wear protective barriers such as disposable latex gloves, gowns, masks, and eye coverings when handling items soiled with blood or body fluids.
- Blood and other body fluids must be thoroughly cleaned from surfaces and objects before application of Selectrocide® 750MG
- Blood, other body fluids, and contaminated cleaning materials should be autoclaved and disposed of according to local regulations for infectious waste disposal.

**DIRECTIONS FOR USE:** IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH THE LABELING. READ THE ENTIRE LABEL AND USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND USE.

1. Open the package, ensuring the 750MG envelope inside is not cut. Discard desiccant.
2. To achieve an aqueous solution of 80 ppm chlorine dioxide, immerse (submerge) the 750MG envelope in container with 2.5 gallons of water. Close/seal container tightly. Container interior should be dark and resistant to oxidation. See Technical Bulletin for recommendations regarding amount of water, contact times and dilutions for specific applications, and recommended container specifications.
3. **WAIT AT LEAST 1 HOUR BEFORE USE TO ENSURE SOLUTION REACHES FULL STRENGTH.**  
DO NOT REMOVE 750MG FROM CONTAINER OF WATER PRIOR TO 1 HOUR.
4. Remove 750MG from container and mix gently before use. Work in well-ventilated area and avoid inhaling fumes. Remove envelope from container within 24 hours after activation. Do not reuse the 750MG. Discard envelope according to instructions below.

## MASTER LABEL [Bracketed Language is Optional]

Before use, verify concentration with *Selective Micro<sup>®</sup> Chlorine Dioxide Test Strips* to ensure appropriate concentration (see Technical Bulletin for directions if *Test Strips* indicate lower-than-desired concentration).

5. Activate prior to expiration date stamped on package. Store unused solution (and/or subsequent dilutions) in a dark, oxidation-resistant closed or sealed container. Record activation date and concentration on stick-on label shipped with the product, and affix to storage container. Store activated solution in cool place out of direct sunlight (do not store in refrigerator dedicated to food storage).

Note: Verify concentration using Selective Micro<sup>®</sup> Test Strips. For concentrations above 10ppm, use Selective Micro<sup>®</sup> Wide Range test strips; for concentrations of 10ppm or less, use Selective Micro<sup>®</sup> Low Range test strips.

### **USE THE FOLLOWING GENERAL DILUTIONS AND TABLE**

General Dilution Instructions: All dilutions begin with a stock solution at a nominal concentration of 500 ppm, except when the product is activated directly to the application concentration (see technical bulletin). Except where otherwise directed, or for other use concentrations (see technical bulletin), use the following dilution instructions to achieve the use concentration indicated:

### **Dilution Instructions For: Selectroside 750MG**

[To Achieve Use Concentration of:]	Use Dilution Device or Sprayer With a Dilution Ratio of:
500 ppm	Activate 750MG in 1.51 liters of water
100 ppm	Activate 750MG in 7.6 liters of water
80 ppm	Activate 750MG in 9.5 liters of water
50 ppm	Activate 750MG in 15.2 liters of water
20 ppm	Activate 750mg in 37.8 liters of water
5 ppm	Activate 750mg in 151.4 liters of water
0.25ppm	Activate 750mg in 3027.2 liters of water

**PEASE REFERENCE MASTER LABEL TECHNICAL BULLETIN FOR DETAILED USE PATTERNS AND DILUTION RATES.**

### **STORAGE AND DISPOSAL**

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE AND DISPOSAL. STORE IN COOL, DRY, VENTILATED AREA. STORE BELOW

50° C (122° F). KEEP PRODUCT OUT OF DIRECT SUNLIGHT. STORE SEPARATELY FROM WATER AND ACIDS. IF PACKAGE RUPTURES AND CONTENTS SPILL, DO NOT PERMIT CONTACT OF CONTENTS WITH ORGANIC MATERIALS (FOR EXAMPLE: CLOTHING OR COMBUSTIBLE MATERIALS) OR ACIDS. PESTICIDE WASTES ARE TOXIC. IMPROPER DISPOSAL OF EXCESS DRY PESTICIDE IS A VIOLATION OF FEDERAL LAW. IF THIS PRODUCT CANNOT BE USED ACCORDING TO LABEL INSTRUCTIONS, CONTACT YOUR STATE PESTICIDE OR ENVIRONMENTAL CONTROL AGENCY, OR THE HAZARDOUS WASTE REPRESENTATIVE AT THE NEAREST EPA REGIONAL OFFICE FOR GUIDANCE. NONREFILLABLE CONTAINER. DO NOT REUSE OR REFILL THIS CONTAINER. OFFER FOR RECYCLING, IF AVAILABLE, OR DISPOSE OF SPENT ENVELOPE IN A SANITARY LANDFILL OR BY INCINERATION, OR IF ALLOWED BY STATE AND LOCAL AUTHORITIES, BY BURNING. IF BURNED, STAY OUT OF SMOKE.

**WARRANTY STATEMENT:** The Company warrants the product to be free from defects in material and workmanship. THE COMPANY MAKES NO WARRANTY THAT THE GOODS SHALL BE MERCHANTABLE. THE COMPANY MAKES NO WARRANTY, EXPRESSED OR IMPLIED, EXCEPT SUCH AS IS EXPRESSLY SET FORTH HEREIN. The Company shall not be liable for any incidental or consequential damages for any breach of warranty. The Company's liability for any breach of warranty shall be limited to the purchase price of the product.

# SelectroFresh™

12G  
FOOD PROCESSING

## SANITIZER/BACTERICIDE/FUNGICIDE/DISINFECTANT/VIRUCIDE/DEODORIZER

When used as directed, this chlorine dioxide-generating product is proven effective as: a **sanitizer** against *E. coli* (and *E. coli* O157:H7), *S. aureus*, *Salmonella typhimurium* (MDRS), *Klebsiella pneumoniae*, and *Listeria monocytogenes*; a **bactericide** against *Erwinia chrysanthemi*, a **fungicide** against *Penicillium digitatum*, *Botrytis Sp.*, and *Fusarium solani*, a **bactericide** against *Salmonella enterica* (choleraesuis), a **virucide** against Norovirus (feline calici used as testing surrogate). See Technical Bulletin (page 4) for ATCC designation numbers of the above-listed organisms.



### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER:** DRY INGREDIENTS: CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE (GOGGLES, FACE SHIELD OR SAFETY GLASSES). WEAR PROTECTIVE GLOVES IF CONTACT WITH DRY INGREDIENTS OCCURS. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING, CHEWING GUM, USING TOBACCO OR USING THE TOILET. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE.

**NOTE:** THIS PRODUCT IS DESIGNED TO FULLY COMPARTMENTALIZE DRY INGREDIENTS INSIDE A HYDROPHOBIC ENVELOPE. UNDER NORMAL USE CONDITIONS AND UNLESS SEALED PRODUCT ENVELOPE IS COMPROMISED, CONTACT WITH DRY INGREDIENTS SHOULD NOT OCCUR. HOWEVER, IF SEALED PRODUCT ENVELOPE IS COMPROMISED AND THE POTENTIAL FOR CONTACT WITH DRY INGREDIENTS OCCURS, THE ABOVE PRECAUTIONARY RECOMMENDATIONS SHOULD BE FOLLOWED WHEN HANDLING.

#### PHYSICAL OR CHEMICAL HAZARDS

DRY SODIUM CHLORITE IS INCOMPATIBLE WITH ACIDS, REDUCING AGENTS, COMBUSTIBLE MATERIALS, SULFUR-CONTAINING RUBBER, SOLVENTS AND PAINTS. KEEP ACTIVATED SOLUTION FROM LIGHT AND HEAT. CHLORINE DIOXIDE GAS MAY CONCENTRATE IN OPEN SPACE OF CONTAINER IN WHICH 12G ENVELOPE IS ACTIVATED. ALWAYS DILUTE ACTIVATED PRODUCT IN WELL-VENTILATED AREA. DO NOT REMOVE 12G FROM CONTAINER OF WATER PRIOR TO COMPLETE GENERATION—AFTER IMMERSION IN WATER.

**Note:** for use in the institutional or commercial applications discussed below and in the accompanying technical bulletin. Verify concentration using Selective Micro® Test Strips. For concentrations above 10ppm, use Selective Micro® Wide Range test strips; for concentrations of 10ppm or less, use Selective Micro® Low Range test strips.

#### STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE AND DISPOSAL. STORE IN COOL, DRY, VENTILATED AREA. STORE BELOW 50° C (122° F). KEEP PRODUCT OUT OF DIRECT SUNLIGHT. STORE SEPARATELY FROM WATER AND ACIDS. IF PACKAGE RUPTURES AND CONTENTS SPILL, DO NOT PERMIT CONTACT OF CONTENTS WITH ORGANIC MATERIALS (FOR EXAMPLE: CLOTHING OR COMBUSTIBLE MATERIALS) OR ACIDS. PESTICIDE WASTES ARE TOXIC. IMPROPER DISPOSAL OF EXCESS DRY PESTICIDE IS A VIOLATION OF FEDERAL LAW. IF THIS PRODUCT CANNOT BE USED ACCORDING TO LABEL INSTRUCTIONS, CONTACT YOUR STATE PESTICIDE OR ENVIRONMENTAL CONTROL AGENCY, OR THE HAZARDOUS WASTE REPRESENTATIVE AT THE NEAREST EPA REGIONAL OFFICE FOR GUIDANCE. NONREFILLABLE CONTAINER. DO NOT REUSE OR REFILL THIS CONTAINER. OFFER FOR RECYCLING, IF AVAILABLE, OR DISPOSE OF SPENT ENVELOPE IN A SANITARY LANDFILL OR BY INCINERATION, OR IF ALLOWED BY STATE AND LOCAL AUTHORITIES, BY BURNING. IF BURNED, STAY OUT OF SMOKE.

#### WARRANTY STATEMENT

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### FIRST AID

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**If Swallowed:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If Inhaled:** Remove victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice. Get medical attention.

Have the product container or label with you when calling a poison control center, doctor, or going for treatment.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

EPA Registration No. 74986-5

EPA Establishment No. 090569-OH-001

## KEEP OUT OF REACH OF CHILDREN DANGER

#### Active Ingredient:

Sodium Chlorite:.....	30.5%
Other Ingredients:.....	69.5%
Total:.....	100.0%

Amount of Chlorine Dioxide generated = 0.05% in 24 liters of water	
Net Weight of contents:.....	5.42 ounces (153.6 grams)



#### DIRECTIONS FOR USE:

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH THE LABELING. READ THE ENTIRE LABEL AND USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND USE DIRECTIONS.

1. Open the package, ensuring the 12G envelope inside is not cut. Discard desiccant.
2. To achieve an aqueous solution of 500 ppm chlorine dioxide, immerse (submerge) the 12G envelope in container with 24 liters of water. [To achieve an aqueous solution of 100 ppm chlorine dioxide directly, immerse (submerge) the 12G envelope in container with 120 liters of water.] Close/seal container tightly. Container interior should be dark and resistant to oxidation. See Technical Bulletin for recommendations regarding amount of water, contact times and dilutions for specific applications, and recommended container specifications.
3. WAIT BEFORE USE TO ENSURE SOLUTION REACHES FULL STRENGTH. DO NOT REMOVE 12G FROM CONTAINER OF WATER PRIOR TO **2 HOURS**.
4. Remove 12G from container and mix gently before use. Work in well-ventilated area and avoid inhaling fumes. Wear protective gloves if hands will come into contact with activated solution during dilution or application; wear NIOSH/MHSA-approved respirator for chlorine dioxide if working with stock (500 ppm) solution in open container. Remove envelope from container after activation. Do not reuse the 12G. Discard envelope according to instructions below. Before use, verify concentration with Selective Micro® Chlorine Dioxide Test Strips to ensure appropriate concentration (see Technical Bulletin for directions if Test Strips indicate lower-than-desired concentration).
5. Activate prior to expiration date stamped on package. Store unused solution (and/or subsequent dilutions) in a dark, oxidation-resistant closed or sealed container. Record activation date and concentration on stick-on label shipped with the product, and affix to storage container. Store activated solution in cool place out of direct sunlight (do not store in refrigerator dedicated to food storage). Test solution and/or subsequent dilutions using colorimetric test strips to ensure accurate ppm concentration before use.

When used as directed, on hard, non-porous surfaces (e.g., stainless steel, brass, glass, vinyl, PVC, polypropylene), this product is an effective sanitizer, virucide, fungicide, algacide, general-purpose antimicrobial and cleaner for use in a wide range of applications. Heavily soiled surfaces must be pre-cleaned prior to treatment. Apply by mop, sponge, or sprayer, ensuring visible wetness for times specified for these applications, or apply through immersion or clean-in-place application. Wear a NIOSH/MHSA-approved respirator appropriate for chlorine dioxide when using a high-pressurized sprayer and under other circumstances detailed in the Technical Bulletin.



#### GENERAL DILUTION INSTRUCTIONS:

All dilutions begin with a stock solution at a nominal concentration of 500 ppm, except when the product is activated directly to the application concentration (see technical bulletin). Except where otherwise directed, or for other use concentrations (see technical bulletin), use the following dilution instructions to achieve the use concentration indicated:

To Achieve Use Concentration of:	Use Dilution Device or Sprayer With a Dilution Ratio of:
100 ppm	1:5 (one part 500 ppm solution to 4 parts water)
50 ppm	1:10 (one part 500 ppm solution to 9 parts water)
20 ppm	1:25 (one part 500 ppm solution to 24 parts water)
5 ppm	1:100 (one part 500 ppm solution to 99 parts water)
0.25 ppm	1:2,000 (one part 500 ppm solution to 1,999 parts water)

#### SANITIZER FOR HARD, NON-POROUS, FOOD-CONTACT SURFACES.

Effective food contact surface sanitizer at 5 ppm against *E. coli* and *E. coli* O157:H7, *Salmonella typhimurium* (MDRS), and *Staphylococcus aureus* with an exposure time of 1 minute. Product may be used on previously cleaned food preparation surfaces; fountain drink and beverage dispensers; glassware, plates and eating utensils; food processing equipment, including beer processing equipment and lines, and food conveyor belts. Dilute to 5 ppm as table above specifies. See Technical Bulletin for alternative dilution instructions and application specifics.

#### SANITIZER FOR HARD, NON-POROUS, NON-FOOD-CONTACT SURFACES.

Effective non-food contact surface sanitizer at 20 ppm against *Staphylococcus aureus*, *Klebsiella pneumoniae* and *Listeria monocytogenes* with an exposure time of 5 minutes. Product may be used on non-food contact surfaces, including floors, walls, furnishings, and equipment. Dilute to 20 ppm as table above specifies. See Technical Bulletin for alternative dilution instructions and application specifics.

#### FRUIT AND VEGETABLE WASH TO EXTEND FRESHNESS AND SHELF-LIFE.

This product may be used at 5 ppm for 1 minute to reduce spoilage microorganisms on raw agricultural commodities (RACs) in food processing facilities. Spray or dip RACs, and follow with a potable water rinse or by canning, blanching, or cooking. Dilute to 5 ppm as table above specifies. See Technical Bulletin for detailed directions and other dilution and application specifics.

#### TO SANITIZE or CLEAN SHELL EGGS INTENDED FOR FOOD OR

**PRODUCTS.** Prepare solution containing 100ppm or less working solution of chlorine dioxide. Eggs may be broken for food products without a prior potable water rinse. Eggs must be reasonably dry before casing or breaking. See Technical Bulletin for detailed directions and other dilution and application specifics.

#### GENERAL DISINFECTANT, SANITIZER, ALGACIDE, & BACTERICIDE FOR HORTICULTURAL AND GREENHOUSE APPLICATIONS:

For horticultural applications, this product may be used to disinfect (100 ppm/10 minutes or 50 ppm/20 minutes) and sanitize (20 ppm/5 minutes) hard, non-porous surfaces; to treat, control, and prevent **bacteria** (5 ppm/1hour) (*Penicillium digitatum*, *Botrytis* Sp, *Fusarium solani* & *oxysporum* f. sp. *Basilicum* (Fob), and *Pythium irregulare* & *aphanidermatum*), bacteria (*Erwinia chrysanthemi*), algae (*Phormidium boneri*), attendant slimes, rusts, leaf spot and mildews; and to remove slimes (50 ppm/12 hours-overnight) & inhibit reemergence (0.25 ppm/continuous treatment) in irrigation and other non-potable water systems. Concentrations and contact times are application-specific; dilute to use concentrations as table above specifies. See Technical Bulletin for detailed directions and other dilution and application specifics.

#### DISINFECTANT OR VIRUCIDE FOR HARD, NON-POROUS SURFACES:

Product may be used at 100 ppm with an exposure time of 10 minutes to disinfect hard surfaces in medical facilities or veterinary clinics that may be contaminated with Feline Calicivirus. This product may be used as a disinfectant or virucide on general environmental surfaces. Dilute to 100 ppm as table above specifies. See Technical Bulletin for detailed directions and other dilution and application specifics.

#### TO TREAT POTATOES DURING STORAGE AND SHIPMENT. Atmospheric ClO2 treatment for potatoes.

Use chlorine dioxide to freely migrate across the potatoes' surface up to six hours. See Technical Bulletin for detailed directions and other dilution and application specifics.



MASTER LABEL [Bracketed Language is Optional]

**[FOR USE WITH SELECTIVE MICRO FDA-APPROVED FOOD CONTACT  
APPLICATIONS (FCNs): 445, 645, 1578]**

**This product can be used according to the following FDA-approved methods:**

**(Not For Use In California)**

# Selectrocid<sup>®</sup>A12

**Intended Use:** As an antimicrobial agent to wash fruits, vegetables, mushrooms, fungi and truffles, to reduce pathogenic microorganisms on poultry carcasses, to wash red meat, red meat parts and organs, and pork red meat and pork, and to rinse, wash, thaw, transport, or store seafood.

## FDA Approved Food Contact Substance for Reduction in Microbial Contamination

- GENERATES GREATER THAN 99% PURE CHLORINE DIOXIDE IN SOLUTION
- ELIMINATES NEED FOR GENERATION EQUIPMENT OR PRECURSOR CHEMICALS
- LOW CORROSION AND RESIDUE—DOES NOT CREATE CHLORAMINE BY-PRODUCTS OR TRIHALOMETHANES (THMS)

**Generates Pure Chlorine Dioxide to Control Food-Spoilage and Pathogenic Microorganisms on:**

### Applications for Fresh-Cut Fruits and Vegetables

- Use as dip or spray
- Controls food-spoilage and pathogenic microorganisms, thereby extending freshness and shelf-life

### Applications for Mushrooms, Fungi, and Truffles

- Use as dip or spray
- Controls food-spoilage and pathogenic microorganisms, thereby extending freshness and shelf-life

### Applications During Poultry Processing

- Use as dip or spray
- Reduces/controls pathogenic microbial load on poultry before and after immersion in chiller water

### Applications for Meat and Pork Processing

- Use as dip or spray
- Controls food-spoilage and pathogenic microorganisms, thereby extending freshness, appearance, and shelf-life

### Applications for Seafood Products

- Use as dip or spray
- Controls food-spoilage and pathogenic microorganisms, thereby extending freshness, appearance and shelf-life

### Active Ingredient:

Sodium Chlorite:.....30.5%  
Other Ingredients:..... 69.5%  
Total:.....100.0%

Net Weight of contents.....5.4 ounces (153.6 grams)

Amount of Chlorine Dioxide generated = 0.01% in 100 liters of water

**KEEP OUT OF REACH OF CHILDREN**  
**— DANGER —**



**FIRST AID**

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**If Swallowed:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If Inhaled:** Remove victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice. Get medical attention.

Have the product container or label with you when calling a poison control center, doctor, or going for treatment.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

Manufactured for: Selective Micro Technologies 6200 Avery Rd., Suite A, Dublin, OH 43016 [www.selectivemicro.com](http://www.selectivemicro.com)

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER:** DRY INGREDIENTS: CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE AND CAUSES SKIN BURNS. HARMFUL IF SWALLOWED. WEAR PROTECTIVE EYEWEAR (GOGGLES, FACE SHIELD OR SAFETY GLASSES) WHEN HANDLING DRY INGREDIENTS. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING, CHEWING GUM, USING TOBACCO OR USING THE TOILET. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE.

**ACTIVATED SOLUTION:** CAUSES MODERATE EYE IRRITATION. AVOID CONTACT WITH EYES, SKIN, OR CLOTHING. AVOID BREATHING VAPORS. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING, CHEWING GUM OR USING TOBACCO.

### PHYSICAL OR CHEMICAL HAZARDS

DRY SODIUM CHLORITE IS INCOMPATIBLE WITH ACIDS, REDUCING AGENTS, COMBUSTIBLE MATERIALS, SULFUR-CONTAINING RUBBER, SOLVENTS AND PAINTS. KEEP ACTIVATED SOLUTION FROM LIGHT AND HEAT. CHLORINE DIOXIDE GAS MAY CONCENTRATE IN OPEN SPACE OF CONTAINER IN WHICH A12 ENVELOPE IS ACTIVATED. ALWAYS DILUTE ACTIVATED PRODUCT IN WELL-VENTILATED AREA. DO NOT REMOVE A12 FROM CONTAINER OF WATER PRIOR TO COMPLETE GENERATION—2 HOURS AFTER EXPOSURE TO WATER.

**NOTE:** For use in the institutional or commercial applications discussed below and in the accompanying Technical Bulletin. Not for use in households or where young children may be present.

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal. Store in cool, dry, ventilated area. Store below 50° C (122° F). Keep product out of direct sunlight. Store separately from water and acids. If package ruptures and contents spill, do not permit contact of contents with organic materials (for example: clothing or combustible materials) or acids. Nonrefillable container. Do not reuse or refill this container. Completely empty activated solution in pouch into application equipment. Offer for recycling, if available, or dispose of empty pouch in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Warranty Statement:** The Company warrants the product to be free from defects in material and workmanship. THE COMPANY MAKES NO WARRANTY THAT THE GOODS SHALL BE MERCHANTABLE. THE COMPANY MAKES NO WARRANTY, EXPRESSED OR IMPLIED, EXCEPT SUCH AS IS EXPRESSLY SET FORTH HEREIN. The Company shall not be liable for any incidental or consequential damages for any breach of warranty. The Company's liability for any breach of warranty shall be limited to the purchase price of the product.

## FRUIT AND VEGETABLE WASH TO EXTEND FRESHNESS AND SHELF-LIFE.

Use product as an antimicrobial agent to wash fruits and vegetables that are not raw agricultural commodities in an amount not to exceed 3 ppm residual chlorine dioxide as determined by methods specified in 21 CFR 173.300. The treated fruits or vegetables will be further processed by blanching, canning or cooking, or consumed as fresh-cut fruits and vegetables. Treatment of the fruits and vegetables may be followed by a potable water rinse. This product may be used to reduce spoilage or pathogenic microorganisms on cut or processed fruits and vegetables in food processing facilities, such as flume and washing operations, and other commercial food preparation areas. Depending on decontamination needs/contamination levels, use at concentrations up to 10 ppm to produce the desired microbial reductions on processed fruits and vegetables.

**MUSHROOM, FUNGI, AND TRUFFLE WASH TO EXTEND SHELF-LIFE.** Use product as an antimicrobial agent to wash mushrooms, fungi and truffles that are not raw agricultural commodities in an amount not to exceed 3 ppm residual chlorine dioxide as determined by methods specified in 21 CFR 173.300. The treated mushrooms, fungi and truffles will be further processed by blanching, canning or cooking, or consumed as fresh-cut fruits and vegetables. Treatment of the mushrooms, fungi and truffles may be followed by a potable water rinse. This product may be used to reduce spoilage or pathogenic microorganisms on cut or processed mushrooms, fungi and truffles in food processing facilities, such as flume and washing operations, and other commercial food preparation areas. Depending on decontamination needs/contamination levels, use at concentrations up to 10 ppm to produce the desired microbial reductions on processed mushrooms, fungi and truffles.

**POULTRY PROCESSING.** Use product as an antimicrobial agent to reduce pathogenic microorganisms on poultry carcasses in an amount not to exceed 3 ppm residual chlorine dioxide as determined by methods specified in 21 CFR 173.300. Depending on the decontamination needs/contamination levels, use at concentrations up to 10 ppm for one (1) minute to produce the desired microbial reductions on poultry carcasses. Spray or dip processed poultry, ensuring visible wetness for at least one (1) minute.

**MEAT AND PORK PROCESSING.** Red Meat (including Meat Parts and Organs), Processed, Comminuted, or Formed Meat Products, and Pork Processing: Use product as an antimicrobial agent to wash red meat, red meat parts and organs, and pork in an amount not to exceed 3 ppm residual chlorine dioxide as determined by methods specified in 21 CFR 173.300. The treatment of red meat, red meat parts and organs, and pork shall be followed by a potable water rinse or by blanching, cooking, or canning. This product may be used to reduce spoilage or pathogenic microorganisms on processed red meat, red meat parts and organs, and pork in food processing facilities and other commercial food preparation areas. Depending on the decontamination needs/contamination levels, use at concentrations up to 10 ppm to produce the desired microbial reductions on processed red meat, red meat parts and organs, and pork.

**SEAFOOD PROCESSING.** Use product as an antimicrobial agent used in water and ice that are used to rinse, wash, thaw, transport, or store seafood in an amount not to exceed 3 ppm residual chlorine dioxide as determined by methods specified in 21 CFR 173.300. The treatment of seafood that will be consumed raw shall be followed by a potable water rinse. This product may be used to reduce spoilage or pathogenic microorganisms on processed seafood in food processing facilities and other commercial food preparation areas. Depending on the decontamination needs/contamination levels, use at concentrations up to 10 ppm to produce the desired microbial reductions on seafood.

## DIRECTIONS FOR USE

1. Read entire label before using this product.
2. Open the package, ensuring the Selectrocide envelope inside is not cut. Discard desiccant.
3. Immerse (submerge) the Selectrocide envelope in container of water. Close/seal container tightly. Container interior should be dark and resistant to oxidation. See Technical Bulletin for recommendations regarding amount of water, contact times and dilutions for specific applications, and recommended container specifications.
4. **WAIT AT LEAST 2 HOURS BEFORE USE TO ENSURE SOLUTION REACHES FULL STRENGTH. DO NOT REMOVE SELECTROCIDE ENVELOPE FROM CONTAINER OF WATER PRIOR TO 2 HOURS.**
5. Before use, remove Selectrocide envelope from container and mix gently. Work in well-ventilated area and avoid inhaling fumes. Wear protective gloves if hands will come into contact with activated solution during dilution or application.
6. Before use, verify concentration with Selective Micro® Chlorine Dioxide Test Strips to ensure appropriate concentration (see Technical Bulletin for directions if Test Strips indicate lower-than-desired concentration).
7. Remove envelope from container within 24 hours after activation. Do not reuse the Selectrocide envelope. Discard envelope according to instructions below.
8. Activate prior to expiration date stamped on package. Store unused solution (and/or subsequent dilutions) in a dark, oxidation-resistant closed or sealed container. Record activation date and concentration on stick-on label inside shipping package and affix to storage container. Store activated solution in cool place out of direct sunlight (do not store in refrigerator dedicated to food storage).
9. Verify concentration for solutions stored longer than 15 days. Note: Verify concentration using Selective Micro® Test Strips. For concentrations above 10 ppm, use Selective Micro® Wide Range Test Strips; for concentrations of 10 ppm or less, use Selective Micro® Low Range Test Strips.

Eight (8) envelopes will make 50 gallons of 500 ppm concentrated chlorine dioxide solution. See product Technical Bulletin for dilution and application rates.



FDA Approved FCNs 645, 1578

**Read Product Label and SDS Before Use. Read Product Technical Bulletin for Dilution and Application Rates.**

**80017 Rev 1 (2-16)**

# Selectrocid<sup>®</sup>A5

**Intended Use:** As an antimicrobial agent to wash fruits, vegetables, mushrooms, fungi and truffles, to reduce pathogenic microorganisms on poultry carcasses, to wash red meat, red meat parts and organs, and pork red meat and pork, and to rinse, wash, thaw, transport, or store seafood.

## FDA Approved Food Contact Substance for Reduction in Microbial Contamination

- GENERATES GREATER THAN 99% PURE CHLORINE DIOXIDE IN SOLUTION
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**Generates Pure Chlorine Dioxide to Control Food-Spoilage and Pathogenic Microorganisms on:**

### Applications for Fresh-Cut Fruits and Vegetables

- Use as dip or spray
- Controls food-spoilage and pathogenic microorganisms, thereby extending freshness and shelf-life

### Applications for Mushrooms, Fungi, and Truffles

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### Applications During Poultry Processing

- Use as dip or spray
- Reduces/controls pathogenic microbial load on poultry before and after immersion in chiller water

### Applications for Meat and Pork Processing

- Use as dip or spray
- Controls food-spoilage and pathogenic microorganisms, thereby extending freshness, appearance, and shelf-life

### Applications for Seafood Products

- Use as dip or spray
- Controls food-spoilage and pathogenic microorganisms, thereby extending freshness, appearance and shelf-life

### Active Ingredient:

Sodium Chlorite:.....30.5%  
Other Ingredients:..... 69.5%  
Total:.....100.0%

Net Weight of contents.....2.52 ounces (71.30 grams)

Amount of Chlorine Dioxide generated = 0.05% in 10 liters of water

**KEEP OUT OF REACH OF CHILDREN**  
**— DANGER —**



**FIRST AID**

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**If Swallowed:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If Inhaled:** Remove victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice. Get medical attention.

Have the product container or label with you when calling a poison control center, doctor, or going for treatment.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

Manufactured for: Selective Micro Technologies 6200 Avery Rd., Suite A, Dublin, OH 43016 [www.selectivemicro.com](http://www.selectivemicro.com)

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER:** DRY INGREDIENTS: CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE AND CAUSES SKIN BURNS. HARMFUL IF SWALLOWED. WEAR PROTECTIVE EYEWEAR (GOGGLES, FACE SHIELD OR SAFETY GLASSES) WHEN HANDLING DRY INGREDIENTS. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING, CHEWING GUM, USING TOBACCO OR USING THE TOILET. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE.

**ACTIVATED SOLUTION:** CAUSES MODERATE EYE IRRITATION. AVOID CONTACT WITH EYES, SKIN, OR CLOTHING. AVOID BREATHING VAPORS. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING, CHEWING GUM OR USING TOBACCO.

### PHYSICAL OR CHEMICAL HAZARDS

DRY SODIUM CHLORITE IS INCOMPATIBLE WITH ACIDS, REDUCING AGENTS, COMBUSTIBLE MATERIALS, SULFUR-CONTAINING RUBBER, SOLVENTS AND PAINTS. KEEP ACTIVATED SOLUTION FROM LIGHT AND HEAT. CHLORINE DIOXIDE GAS MAY CONCENTRATE IN OPEN SPACE OF CONTAINER IN WHICH A5 ENVELOPE IS ACTIVATED. ALWAYS DILUTE ACTIVATED PRODUCT IN WELL-VENTILATED AREA. DO NOT REMOVE A5 FROM CONTAINER OF WATER PRIOR TO COMPLETE GENERATION—2 HOURS AFTER EXPOSURE TO WATER.

**NOTE:** For use in the institutional or commercial applications discussed below and in the accompanying Technical Bulletin. Not for use in households or where young children may be present.

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal. Store in cool, dry, ventilated area. Store below 50° C (122° F). Keep product out of direct sunlight. Store separately from water and acids. If package ruptures and contents spill, do not permit contact of contents with organic materials (for example: clothing or combustible materials) or acids. Nonrefillable container. Do not reuse or refill this container. Completely empty activated solution in pouch into application equipment. Offer for recycling, if available, or dispose of empty pouch in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Warranty Statement:** The Company warrants the product to be free from defects in material and workmanship. THE COMPANY MAKES NO WARRANTY THAT THE GOODS SHALL BE MERCHANTABLE. THE COMPANY MAKES NO WARRANTY, EXPRESSED OR IMPLIED, EXCEPT SUCH AS IS EXPRESSLY SET FORTH HEREIN. The Company shall not be liable for any incidental or consequential damages for any breach of warranty. The Company's liability for any breach of warranty shall be limited to the purchase price of the product.

## FRUIT AND VEGETABLE WASH TO EXTEND FRESHNESS AND SHELF-LIFE.

Use product as an antimicrobial agent to wash fruits and vegetables that are not raw agricultural commodities in an amount not to exceed 3 ppm residual chlorine dioxide as determined by methods specified in 21 CFR 173.300. The treated fruits or vegetables will be further processed by blanching, canning or cooking, or consumed as fresh-cut fruits and vegetables. Treatment of the fruits and vegetables may be followed by a potable water rinse. This product may be used to reduce spoilage or pathogenic microorganisms on cut or processed fruits and vegetables in food processing facilities, such as flume and washing operations, and other commercial food preparation areas. Depending on decontamination needs/contamination levels, use at concentrations up to 10 ppm to produce the desired microbial reductions on processed fruits and vegetables.

**MUSHROOM, FUNGI, AND TRUFFLE WASH TO EXTEND SHELF-LIFE.** Use product as an antimicrobial agent to wash mushrooms, fungi and truffles that are not raw agricultural commodities in an amount not to exceed 3 ppm residual chlorine dioxide as determined by methods specified in 21 CFR 173.300. The treated mushrooms, fungi and truffles will be further processed by blanching, canning or cooking, or consumed as fresh-cut fruits and vegetables. Treatment of the mushrooms, fungi and truffles may be followed by a potable water rinse. This product may be used to reduce spoilage or pathogenic microorganisms on cut or processed mushrooms, fungi and truffles in food processing facilities, such as flume and washing operations, and other commercial food preparation areas. Depending on decontamination needs/contamination levels, use at concentrations up to 10 ppm to produce the desired microbial reductions on processed mushrooms, fungi and truffles.

**POULTRY PROCESSING.** Use product as an antimicrobial agent to reduce pathogenic microorganisms on poultry carcasses in an amount not to exceed 3 ppm residual chlorine dioxide as determined by methods specified in 21 CFR 173.300. Depending on the decontamination needs/contamination levels, use at concentrations up to 10 ppm for one (1) minute to produce the desired microbial reductions on poultry carcasses. Spray or dip processed poultry, ensuring visible wetness for at least one (1) minute.

**MEAT AND PORK PROCESSING.** Red Meat (including Meat Parts and Organs), Processed, Comminuted, or Formed Meat Products, and Pork Processing: Use product as an antimicrobial agent to wash red meat, red meat parts and organs, and pork in an amount not to exceed 3 ppm residual chlorine dioxide as determined by methods specified in 21 CFR 173.300. The treatment of red meat, red meat parts and organs, and pork shall be followed by a potable water rinse or by blanching, cooking, or canning. This product may be used to reduce spoilage or pathogenic microorganisms on processed red meat, red meat parts and organs, and pork in food processing facilities and other commercial food preparation areas. Depending on the decontamination needs/contamination levels, use at concentrations up to 10 ppm to produce the desired microbial reductions on processed red meat, red meat parts and organs, and pork.

**SEAFOOD PROCESSING.** Use product as an antimicrobial agent used in water and ice that are used to rinse, wash, thaw, transport, or store seafood in an amount not to exceed 3 ppm residual chlorine dioxide as determined by methods specified in 21 CFR 173.300. The treatment of seafood that will be consumed raw shall be followed by a potable water rinse. This product may be used to reduce spoilage or pathogenic microorganisms on processed seafood in food processing facilities and other commercial food preparation areas. Depending on the decontamination needs/contamination levels, use at concentrations up to 10 ppm to produce the desired microbial reductions on seafood.

## DIRECTIONS FOR USE

1. Read entire label before using this product.
2. Open the package, ensuring the Selectroicide envelope inside is not cut. Discard desiccant.
3. Immerse (submerge) the Selectroicide envelope in container of water. Close/seal container tightly. Container interior should be dark and resistant to oxidation. See Technical Bulletin for recommendations regarding amount of water, contact times and dilutions for specific applications, and recommended container specifications.
4. **WAIT AT LEAST 2 HOURS BEFORE USE TO ENSURE SOLUTION REACHES FULL STRENGTH. DO NOT REMOVE SELECTROICIDE ENVELOPE FROM CONTAINER OF WATER PRIOR TO 2 HOURS.**
5. Before use, remove Selectroicide envelope from container and mix gently. Work in well-ventilated area and avoid inhaling fumes. Wear protective gloves if hands will come into contact with activated solution during dilution or application.
6. Before use, verify concentration with Selective Micro® Chlorine Dioxide Test Strips to ensure appropriate concentration (see Technical Bulletin for directions if Test Strips indicate lower-than-desired concentration).
7. Remove envelope from container within 24 hours after activation. Do not reuse the Selectroicide envelope. Discard envelope according to instructions below.
8. Activate prior to expiration date stamped on package. Store unused solution (and/or subsequent dilutions) in a dark, oxidation-resistant closed or sealed container. Record activation date and concentration on stick-on label inside shipping package and affix to storage container. Store activated solution in cool place out of direct sunlight (do not store in refrigerator dedicated to food storage).
9. Verify concentration for solutions stored longer than 15 days. Note: Verify concentration using Selective Micro® Test Strips. For concentrations above 10 ppm, use Selective Micro® Wide Range Test Strips; for concentrations of 10 ppm or less, use Selective Micro® Low Range Test Strips.



FDA Approved FCNs 645, 1578

**Read Product Label and SDS Before Use. Read Product Technical Bulletin for Dilution and Application Rates.**

**Rev 1 (9-16)**

Bracketed [ ] Text Optional



## Technical Bulletin

### Disinfectant/Sanitizer/Tuberculocide/Virucide\* Fungicide/Algaecide/Slimicide/Deodorizer

### An Atmospheric ClO<sub>2</sub> Treatment

EPA Registration No. 74986-5

EPA Establishment No. 071441-OH-004 [090569-OH-001]

**To activate: See “Directions for Use” on package label**

*[Room Temperature was effectiveness temperature for each concentration claim]*

***Use the following number of envelopes to prepare a 500 or 800 ppm solution of chlorine dioxide in the indicated volume of water inside a closed container; for activation protocols to reach 800 ppm, product should be immersed into water for a minimum of four hours:***

For this concentration of chlorine dioxide	In this Volume of Water:  Gallons Liters		Immerse this number of <i>Selectrocide</i> ® 1G envelopes for at least two (2) hours; [at least four (4) hours for 800 ppm generation]	Immerse this number of <i>Selectrocide</i> ® 5G envelopes for at least two (2) hours	Immerse this number of <i>Selectrocide</i> ® 12G envelopes for at least two (2) hours
500 ppm	2.5	10	5	1	
500 ppm	5	20	10	2	
500 ppm	6	24	12		1
500 ppm	7.5	30	15		
500 ppm	10	40	20	4	
500 ppm	12	48			2
500 ppm	15	60		6	
500 ppm	18	72			3
500 ppm	25	96			4
500 ppm	30	120			5
500 ppm	50 <sup>1</sup>	190			8
800 ppm	-	1.25	1		



Note: Verify concentration using Selective Micro® Test Strips. For concentrations above 10 ppm, use Selective Micro® Wide Range test strips; for concentrations of 10 ppm or less, use Selective Micro® Low Range test strips.

**Remove envelope after product has completely activated and according to product label.**  
Alternative dilution concentrations to targeted end-use concentrations are listed below.

***Alternatively, use the following volumes of water to achieve the desired concentrations of chlorine dioxide inside a closed container:***

For this concentration of chlorine dioxide	Immerse the <i>Selectrocide</i> ® 1G in this amount of clean, potable water for at least two (2) hours; remove after.	Immerse the <i>Selectrocide</i> ® 5G in this amount of clean, potable water for at least two (2) hours; remove after.	Immerse the <i>Selectrocide</i> ® 12G in this amount of clean, potable water for at least two (2) hours; remove after.
100 ppm	10 liters	50 liters	120 liters
100 ppm	2.6 gallons	13.2 gallons	31 gallons
50 ppm	20 liters	100 liters	240 liters
50 ppm	5.2 gallons	26.4 gallons	63 gallons
20 ppm	50 liters	250 liters	600 liters
20 ppm	13.1 gallons	66 gallons	158 gallons
5 ppm	200 liters	1,000 liters	2,400 liters
5 ppm	52 gallons	260 gallons	630 gallons
0.25 ppm	4,000 liters	20,000 liters	48,000 liters
0.25 ppm	1,055 gallons	5,275 gallons	12,675 gallons

#### **Dilution Instructions For: Selectrocide 750MG**

To Achieve Use Concentration of:	Use Dilution Device or Sprayer With a Dilution Ratio of:
500 ppm	Activate 750MG in 1.51 liters of water
100 ppm	Activate 750MG in 7.6 liters of water
80 ppm	Activate 750MG in 9.5 liters of water
50 ppm	Activate 750MG in 15.2 liters of water
20 ppm	Activate 750MG in 37.8 liters of water
5 ppm	Activate 750MG in 151.4 liters of water
0.25 ppm	Activate 750MG in 3027.2 liters of water

Note: Verify concentration using *Selective Micro*® Test Strips. For concentrations above 10 ppm, use *Selective Micro*® Wide Range Test Strips; for concentrations of 10 ppm or less, use *Selective Micro*® Low Range Test Strips.

**Do not remove 5G [1G, 12G, 750MG] envelope from container of water prior to 2 hours. [Remove prior to 24 hours]**  
**Discard the spent 5G [1G, 12G, 750MG] envelope and/or mesh Bag (follow disposal instructions on package label), and mix solution gently prior to use.**  
**Do not reuse 5G [1G, 12G, 750MG] envelope**  
**Check concentration of solution using *Selective Micro*® Chlorine Dioxide Test Strips.**  
**(See box on following page for instructions if check indicates concentration lower than desired.)**  
**Record activation date and concentration on stick-on label and affix to storage container.**  
**Storage: Store unused solution according to "Directions for Use" on package label.**

## Bracketed [] Text Optional

### **DURING USE (DILUTING, APPLYING, OR WORKING WITH ACTIVATED PRODUCT):**

1. Always work in well-ventilated area and avoid inhaling fumes of activated solution.
2. Wear protective gloves if hands will come in contact with activated solution.
3. Respiratory protection is not required under the limited exposure conditions of most normal use patterns. However, wear a NIOSH/MSHA-approved respirator under the following conditions:
  - a. when applying activated solution with a high-pressure sprayer
  - b. when working with the activated solution for an extended period of time in a closed facility or in a poorly-ventilated area
  - c. when normal work shift duties entail uninterrupted periods of applying the activated solution with mop, sponge, or sprayer
  - d. when opening vessel containing stock activated solution (at 500 ppm) generated using G-series products
  - e. if OSHA inhalation exposure limits are reached or exceeded (please see MSDS).
4. Do not use product in a manner inconsistent with the label.

### **IF TEST STRIPS INDICATE CONCENTRATION (PPM) LOWER THAN DESIRED:**

1. Check expiration date on *Test Strips* container. If expired, then recheck using fresh *Test Strip* from a container that has not reached its expiration date.
2. If the original container has not expired OR if the recheck indicates a lower-than-desired concentration, THEN DO ONE OF THE FOLLOWING:
  - 2a. If the application solution was prepared directly to the end-concentration (not diluted from a higher concentration), discard the solution and activate a fresh (unused) *Selectocide® 5G* [1G, 12G]. Recheck concentration after waiting the prescribed time to activation.
  - OR
  - 2b. If the application solution was prepared by diluting a solution of higher concentration, add small amounts of the higher-concentration solution to the application solution—about 10% of the volume of the application solution at a time—until the *Selective Micro® Chlorine Dioxide Test Strip* indicates the desired concentration. Stir or mix the solution gently after each addition. Use a fresh (unused) *Test Strip* for each test.

### **RECOMMENDED SPECIFICATIONS FOR CONTAINERS USED WITH *SELECTIVE MICRO* PRODUCTS**

#### **FOR USE IN GENERATING OR STORING ACTIVATED SOLUTIONS**

- The container should be—or be comparable to—a UN-approved, liquid-resealable containment incorporating a gasket-sealing surface and locking mechanism.
- Construction should be of dark or opaque/UV-blocking (preferred) oxidation-resistant plastic or glass. Some materials recommended include:
  - High Density Polyethylene (HDPE)
  - Polypropylene (PP)
  - Polyethylene Terephthalate (PET) (PETE)
  - Polyvinyl Chloride (PVC)
  - Polycarbonate (PC)
  - Glass (UV-blocking preferred)
  - Gasket materials; silicone, viton or EPDM

Users without containers comparable to the above may contact Selective Micro Technologies for recommendations or to purchase containers for their applications.

## Bracketed [] Text Optional

### ATCC (OR OTHER) DESIGNATIONS FOR PATHOGENIC ORGANISMS LISTED ON THE LABELS OF REGISTERED SELECTROCIDAL PRODUCTS

—Always Consult Label to Verify Concentrations and Contact Times—

#### Bacteria (disinfection claims) 100 ppm/10-minute contact time

<i>Pseudomonas aeruginosa</i>	ATCC 15442
[ <i>Staphylococcus aureus</i> ]	ATCC 6538]
[ <i>Salmonella enterica (choleraesuis)</i> ]	ATCC 10708]
Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA)	ATCC 33592
Vancomycin-resistant <i>Enterococcus faecalis</i> (VRE)	ATCC 51299
<i>Candida albicans</i>	ATCC 10231
<i>Trichophyton interdigitale</i>	ATCC 9533
[ <i>Listeria monocytogenes</i> ]	ATCC 19111]
<i>Mycobacterium bovis</i> (TB)	BCG (Organon Teknika Corporation)

#### \*Viruses (virucidal claims at 100 ppm/10-minute contact time)

<i>Coronavirus</i>	ATCC VR-740, Strain 229E
[ <i>Feline Calicivirus</i> ]	ATCC VR-782, Strain F-9]
<i>Hepatitis A virus</i>	Strain HM-175
<i>Human Immunodeficiency Virus type 1 (HIV-1)</i>	Strain HTLV-III <sub>B</sub>
<i>Poliovirus-1</i>	ATCC VR-1000, Strain Brunhilde
<i>Rotavirus</i>	Strain WA
<i>Influenza-A virus</i>	ATCC VR-544, Strain Hong Kong
<i>Rhinovirus type 37</i>	ATCC VR-1147, Strain 151-1
<i>Canine Parvovirus</i>	ATCC VR-2017, Strain Cornell
<i>Adenovirus type 5</i>	ATCC VR-5, Strain Adenoid 75
<i>Herpes Simplex virus type 2</i>	ATCC VR-734, Strain G
<i>Vaccinia virus</i>	ATCC VR-119, Strain WR
[ <i>Norovirus (feline calicivirus surrogate)</i> ]	ATCC VR-782, Strain F-9]
Pandemic 2009 H1N1 Influenza A virus	Reference <i>Influenza-A virus</i> (above)

#### Bacteria (sanitizer claim for hard, non-porous food contact surfaces) 5 ppm/1-minute contact time

[ <i>Staphylococcus aureus</i> ]	ATCC 6538]
[ <i>Escherichia Coli</i> ]	ATCC 11229]
[ <i>Escherichia coli O157:H7</i> ]	ATCC 43895]
[ <i>Salmonella typhimurium</i> (MDRS)]	CI 01005 (University of Maryland)]

#### Bacteria (sanitizer claim for hard, non-porous non-food contact surfaces) 20 ppm/5-minute contact time

[ <i>Staphylococcus aureus</i> ]	ATCC 6538]
[ <i>Klebsiella pneumoniae</i> ]	ATCC 4352]
[ <i>Listeria monocytogenes</i> ]	ATCC 1911]

#### Bacteria (disinfection claims) 800 ppm/10-minute contact time

<i>Carbapenem-resistant Enterobacteriaceae: Klebsiella pneumoniae (CRKP)</i>	ATCC BAA-1705
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## GENERAL USE, PUBLIC HEALTH APPLICATIONS

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### A. SANITIZER

#### FOR HARD, NON-POROUS FOOD CONTACT SURFACES

**As a sanitizer for stainless steel and other hard, non-porous food contact surfaces such as tanks, transfer lines and other food processing equipment in food processing plants such as poultry, fish & meat and in restaurants, dairies, beverage and bottling plants, breweries, wineries and commissaries:**

1. Activate *Selectrocid*<sup>®</sup> 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Remove all gross food particles and soil prior to sanitizing using a pre-flush, pre-scrape or pre-soak treatment.
3. Clean tank, line or surface thoroughly using a suitable detergent and rinse with clean, potable water before sanitizing.
4. Prepare a 5 ppm solution of activated *Selectrocid*<sup>®</sup> 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 12G, 750MG] and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).
5. To apply: spray, mop, sponge or swab surfaces or fill, flush, immerse or circulate in tanks, lines, and equipment, ensuring the target surfaces remain visibly wet for at least one minute. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
6. After sanitizing, allow surfaces or equipment to air dry. Do not reuse solution. Do not rinse sanitized surface.
7. Dispose of package and spent envelope according to instructions on package label.

#### FOR HARD, NON-POROUS, NON-FOOD CONTACT SURFACES

**As a sanitizer for non-porous, non-food contact surfaces and equipment such as sealed concrete and sealed, finished wood, backsplashes, bench and counter tops, stainless steel or hard-surface equipment, glazed tile floors, walls, and ceilings:**

1. Activate *Selectrocid*<sup>®</sup> 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Clean all surfaces thoroughly with a suitable detergent and rinse with water prior to sanitizing.
3. Prepare a 20 ppm solution of activated *Selectrocid*<sup>®</sup> 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 12G, 750MG] and use a 1:25 dilution device (one part 500 ppm solution to 24 parts water).
4. To apply: spray, mop, sponge or swab onto the surfaces to be sanitized, ensuring the target surfaces remains visibly wet for at least five minutes. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
5. After sanitizing, allow surfaces or equipment to air dry. Do not reuse solution. Do not rinse sanitized surfaces.
6. Dispose of package and spent envelope according to instructions on package label.

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## B. DISINFECTANT

**To disinfect stainless steel and other hard, non-porous surfaces such as tanks, transfer lines and other food processing equipment in food processing plants such as poultry, fish & meat and in restaurants, dairies, beverage and bottling plants, breweries, wineries and commissaries and to disinfect walls, floors and ceilings:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Remove all gross food particles and soil prior to disinfecting using a pre-flush, pre-scrape or pre-soak treatment.
3. Clean tank, line or surface thoroughly using a suitable detergent and rinse with clean, potable water before disinfecting.
4. Prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:5 dilution device (one part 500 ppm solution to four parts water).
5. To apply: spray, mop, sponge or swab surfaces or fill, flush, immerse or circulate in tanks, lines, and equipment, ensuring the target surfaces remain visibly wet for at least ten (10) minutes. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
6. After disinfecting, allow surfaces or equipment to air dry. Do not reuse solution. Do not rinse disinfected surfaces.
7. Dispose of package and spent envelope according to instructions on package label.

## C. Gram Negative Bactericide Against carbapenem-resistant Enterobacteriaceae: *Klebsiella pneumoniae* (CRKP)

**To disinfect stainless steel and other hard, non-porous surfaces such as bedrails, door handles and to disinfect walls, floors and ceilings:**

1. Activate *Selectrocide*® 1G according to "Directions for Use" on pouch label.
2. Remove all organic particles and soil prior to disinfecting
3. Prepare an 800 ppm solution in accordance with instructions above for the activated *Selectrocide*® 1G.
4. To apply: spray surfaces until visibly wet, ensuring the target surfaces remain visibly wet for at least ten (10) minutes. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide. After disinfecting allow surfaces or equipment to air dry or wipe with a clean dry cloth or wipe. Do not reuse solution. Do not rinse disinfected surfaces.
5. Dispose of pouch according to instructions on pouch label.

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## DISINFECTANT USES IN MEDICAL AND DENTAL OFFICES, LABORATORIES, HOSPITALS, CLINICS, MORGUES AND INSTITUTIONS

**NOTE:** This product is not to be used as a terminal sterilant/high-level disinfectant on any surface or instrument that (1) is introduced directly into the human body, either into or in contact with the blood stream or normally sterile areas of the body or (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to pre-clean or decontaminate critical or semi-critical medical devices prior to sterilization or high-level disinfection.

**A. To disinfect non-porous, hard surfaces such as stainless steel or hard-surface equipment, glazed tile floors, walls, ceilings, floors, shelves, drawers, door handles, stainless steel cold rooms and walk-in incubators:**

1. Activate *Selectroicide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Clean all surfaces thoroughly with a suitable detergent and rinse with water prior to disinfection.
3. Prepare a 100 ppm solution of activated *Selectroicide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:5 dilution device (one part 500 ppm solution to four parts water).
4. Spray, mop or sponge the 100 ppm solution onto surfaces to be disinfected. All surfaces must be visibly wet for at least ten (10) minutes. When spraying disinfectant solution, use an appropriate spraying device. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
5. After disinfecting, allow surfaces or equipment to air dry. Do not reuse solution. Do not rinse disinfected surfaces.
6. Dispose of package and spent envelope according to instructions on package label.

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**B. To disinfect equipment tops, bench tops, biological hoods, incubators, stainless steel equipment and instruments:**

1. Activate *Selectroicide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Clean all surfaces thoroughly with a suitable detergent and rinse with water prior to disinfection.
3. Prepare a 100 ppm solution of activated *Selectroicide*® 5G [1G, 12G, 750MG] prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:5 dilution device (one part 500 ppm solution to four parts water).
4. Spray, mop or sponge the 100 ppm solution onto surfaces to be disinfected. All surfaces must be visibly wet for at least ten (10) minutes. When spraying disinfectant solution, use an appropriate spraying device. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
5. After disinfecting, allow surfaces or equipment to air dry. Do not reuse solution. Do not rinse disinfected surfaces.
6. Dispose of package and spent envelope according to instructions on package label.

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**C. To disinfect commercial animal confinement facilities such as swine pens, calf barns and kennels:**

1. Activate *Selectroicide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Remove all animals and feed from facility to be disinfected.
3. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other structures occupied or traversed by animals.
4. Empty all troughs, racks and other feeding and watering appliances.
5. Prepare a 100 ppm solution of activated *Selectroicide*® 5G [1G, 12G, 750MG] in accordance with instructions above OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:5 dilution device (one part 500 ppm solution to four parts water).

**FOR GENERAL APPLICATION WITH SPRAYER:**

6. With soap or detergent, thoroughly clean all surfaces and rinse with water.
  7. Using a commercial sprayer, saturate all surfaces with the solution keeping visibly wet for a period of at least ten (10) minutes. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
  8. After treatment, ventilate buildings, coops or other enclosed spaces before reentering. Do not house poultry or employ equipment until treatment has been absorbed, set, or dried.
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**AS A DISINFECTING SOAK:**

6. With soap or detergent, thoroughly clean halters, ropes or other types of equipment used in handling and restraining animals and forks, shovels and scrapers used in removing litter and manure. Rinse with water.
7. Fill container or vat with 100 ppm solution and immerse items for a period of at least ten (10) minutes.
8. Discard solution in sanitary drain or as ordinary non-hazardous waste. Do not reuse solution.
9. Thoroughly scrub treated feed racks, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse.
10. Dispose of package and spent envelope according to instructions on package label.

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**D. For application in poultry operations:****DISINFECTION TREATMENT OF EGG ROOM:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Prepare a 20 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] directly in accordance with instructions above or prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:25 dilution device or (one part 500 ppm solution to 24 parts water).
3. Spray solution in a high-pressure sprayer as a prewash to remove gross filth or heavy soil. When applying the solution using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for use with chlorine dioxide.
4. Prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water).
5. Spray hard non-porous surfaces within the entire area, being sure to cover walls, ceiling, floors, work tables and benches. All hard, non-porous surfaces should be wet for five (5) minutes. Allow surfaces to dry for at least 1 hour (or overnight, if possible) before resuming operations. Vacate the premises during this treatment. For spraying applications, wear a NIOSH/MSHA-approved respirator appropriate for use with chlorine dioxide. Washing and spraying operations should be conducted once a week, or more frequently in cases of heavy contamination during operations.
6. Allow treated surfaces to air dry and then ventilate the area. Do not rinse treated surfaces. Do not reuse solution.
7. Prepare and place a shoe bath at the entrance to the egg room for use upon entry. Also, prepare and place a hand/glove dip or rinse at the entrance to the egg room for use upon entering and exiting the room. For instruction in the preparation of shoe baths and hand/glove rinses, please refer to the "Use In Glove Dips And Shoe Baths" section of this document. Replace both the shoe bath and the hand/glove dip daily or when solution is soiled. Keep doors to the room closed at all times to prevent bacterial contamination.
8. Dispose of package(s) and spent envelope(s) according to instructions on package label.

**DISINFECTION TREATMENT OF HATCHING ROOM:***Pre-Treatment*

1. Separate chicks from Hatch and remove all poultry and feeds from premises.
  2. Remove all trash containers with eggshells, down, etc. from the hatching area.
  3. Remove all litter and droppings from floors, walls and surfaces of facilities occupied or traversed by poultry.
  4. Empty all troughs, racks and other feeding and watering appliances.
  5. Thoroughly clean all surfaces with soap or detergent. Rinse surfaces with water.
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#### Treatment Process

6. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
7. Prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water).
8. Spray hard non-porous surfaces within the entire area, being sure to cover walls, ceiling, floors, equipment and benches. All hard, non-porous surfaces should be wet for ten (10) minutes. Vacate the premises during this treatment. For spraying applications, wear a NIOSH/MSHA-approved respirator appropriate for use with chlorine dioxide.
9. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse.

#### Post-Treatment

10. After treatment, ventilate buildings, coops or other enclosed spaces. Do not house poultry or employ equipment until treatment has been absorbed, set or dried.
11. Thoroughly scrub treated feed racks, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before use.
12. Please refer to the "Use in Glove Dips and Shoe Baths" section of this document.

#### **DISINFECTION TREATMENT OF INCUBATOR ROOM:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Before treatment, spray incubator room with a high-pressure water wash. Remove gross filth or soil from all surfaces.
3. Prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water).
4. Spray hard non-porous surfaces within the entire area, being sure to cover walls, ceiling, floors, equipment and benches. All hard, non-porous surfaces should be wet for ten (10) minutes. Vacate the premises during this treatment. For spraying applications, wear a NIOSH/MSHA-approved respirator appropriate for use with chlorine dioxide. Treat incubator room in this manner once a week.
5. Prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water). Mop floors with solution daily.
6. Allow treated surfaces to air dry and then ventilate the area.
7. Prepare and place a shoe bath at the entrance to the egg room for use upon entry. Prepare a hand/glove bath. For instruction in the preparation of shoe baths and hand/glove rinses, please refer to the "Use In Glove Dips And Shoe Baths" section of this document. Replace the shoe bath and the hand/glove dip daily or when a solution is soiled. Keep doors to the room closed at all times to prevent bacterial contamination.
8. Each time eggs are removed from the incubator, submerge eggs in glove dip, then spray with spray bottle. Replace the hand/glove dip daily or when solution is soiled.
9. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not rinse treated surfaces. Do not reuse solution

#### **TREATMENT OF TRAY WASHING ROOM:**

##### Sanitizing Treatment of Tray Washing Equipment

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
  2. Spray the trays, carriages and other working equipment in a tray washing machine with water at a pressure of 300-500 psi to remove gross filth and soil.
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3. Prepare a 20 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] or prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:25 dilution device (one part 500 ppm solution to 24 parts water.).
4. Spray the trays, carriages and other working equipment in a tray washing machine with 20 ppm solution for at least 5 minutes.
5. Store treated equipment in a closed area for reuse.

#### Disinfectant for Tray Washing Room

6. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
7. Close all doors in the tray washing room to avoid contamination of other hatchery operations. Discard all chick downs, egg shells, and cast-off chicks into the trash barrels and transfer the covered containers to the loading platform for disposal
8. Spray tray washing room with a high-pressure water wash. Remove gross filth or soil from all surfaces.
9. Prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water).
10. Spray hard non-porous surfaces in the tray washing room, being sure to cover walls, ceiling, floors, equipment and benches. All hard, non-porous surfaces should be wet for fifteen (15) minutes. Vacate the premises during this treatment. For spraying applications, wear a NIOSH/MSHA-approved respirator appropriate for use with chlorine dioxide. Treat tray washing room in this manner after every use.
11. After treatment, ventilate buildings, coops or other enclosed spaces. Do not re-house equipment until treatment has been absorbed, set or dried. Do not rinse treated surfaces. Do not reuse solution. Keep doors to the room closed at all times to prevent bacterial contamination.
12. Dispose of package(s) and spent envelope(s) according to instructions on package label.

#### Cleaning the Loading Platform

13. Spray loading platform with a high-pressure water wash to remove gross filth or soil from all surfaces.
14. Scrub loading platform with soap or detergent.
15. Rinse loading platform with water.

### **DISINFECTION TREATMENT OF CHICK ROOM, CHICK GRADING BOX, AND SEXING ROOM:**

#### Pre-Treatment

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water).
3. Remove all poultry and feeds from premises, trucks, coops and crates.
4. Empty all troughs, racks and other feeding and watering appliances.
5. Remove all litter and droppings from floors, walls and surfaces of facilities occupied or traversed by poultry.
6. Thoroughly clean all surfaces with soap or detergent and rinse with water.

#### Treatment Process

7. Spray the solution onto walls, ceilings, floors, and other hard, non-porous surfaces until surfaces are lightly damp. For spraying applications, wear a NIOSH/MSHA-approved respirator appropriate for use with chlorine dioxide. Using a commercial sprayer, saturate all hard, non-porous surfaces. Vacate the premises during this treatment
  8. Allow treated surfaces to air dry and then ventilate the area. Do not reuse solution. Do not rinse treated surfaces. Keep doors to the room closed at all times to prevent bacterial contamination.
  9. Dispose of package(s) and spent envelope(s) according to instructions on package label.
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**E. To disinfect drinking fountains, chalkboards, chairs, desks, tabletops, kitchens, dishes, silverware, high chairs, toys, other hard, non-porous surfaces in daycares and schools:**

1. Activate *Selectroicide*® 5G [1G, 12G, 750MG] according to "Directions For Use" on package label.
2. Clean all surfaces thoroughly with a suitable detergent and rinse with water prior to disinfection.
3. Prepare a 100 ppm solution of activated *Selectroicide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:5 dilution device (one part 500 ppm solution to four parts water).
4. Spray, mop or sponge the 100 ppm solution onto surfaces to be disinfected. All surfaces must be visibly wet for at least ten (10) minutes. When spraying disinfectant solution, use an appropriate spraying device. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
5. After disinfecting, allow surfaces or equipment to air dry. Do not reuse solution. Do not rinse disinfected surfaces.
6. Dispose of package and spent envelope according to instructions on package label.

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**F. To Disinfect Display screens, scales and measures, keyboards, CPR dummies, backboards, AEDs, and other hard, non-porous surfaces found in acute care centers, emergency rooms, and ambulances:**

1. Activate *Selectroicide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Clean all surfaces thoroughly with a suitable detergent and rinse with water prior to disinfection.
3. Prepare a 100 ppm solution of activated *Selectroicide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:5 dilution device (one part 500 ppm solution to four parts water).
4. Spray, mop or sponge the 100 ppm solution onto surfaces to be disinfected. All surfaces must be visibly wet for at least ten (10) minutes. When spraying disinfectant solution, use an appropriate spraying device. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
5. After disinfecting, allow surfaces or equipment to air dry. Do not reuse solution. Do not rinse disinfected surfaces.
6. Dispose of package and spent envelope according to instructions on package label.

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**G. To disinfect bleachers, lockers, padded mats, weights and weight benches, balls, exercise equipment and other hard, non-porous surfaces found in training rooms, weight rooms, gymnasiums, and other athletic facilities:**

1. Activate *Selectroicide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
  2. Clean all surfaces thoroughly with a suitable detergent and rinse with water prior to disinfection.
  3. Prepare a 100 ppm solution of activated *Selectroicide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:5 dilution device (one part 500 ppm solution to four parts water).
  4. Spray, mop or sponge the 100 ppm solution onto surfaces to be disinfected. All surfaces must be visibly wet for at least ten (10) minutes. When spraying disinfectant solution, use an appropriate spraying device. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
  5. After disinfecting, allow surfaces or equipment to air dry. Do not reuse solution. Do not rinse disinfected surfaces.
  6. Dispose of package and spent envelope according to instructions on package label.
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## **For the sanitization of bottles used to feed calves and other livestock:**

1. Activate *Selectroicide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Remove any gross food particles and debris from bottle surface prior to sanitizing using a pre-flush, pre-scrape or pre-soak treatment.
3. Clean bottle thoroughly using a suitable detergent and rinse with clean, potable water before sanitizing.
4. Prepare a 5 ppm solution of activated *Selectroicide*® 5G in accordance with instructions above OR prepare a 500 ppm solution [1G, 750MG, 12G] and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).
5. To apply: spray solution onto surface/inside of bottle. Ensure that the target surfaces remain visibly wet for at least one (1) minute. If applying sanitizer using an existing water supply system, inject the 5 ppm chlorine dioxide solution into the system using a Dosatron® dilution/dispenser, or another dilution/dispensing system. This will sanitize the water system, as well as calf bottles.
6. After sanitizing, allow surfaces or equipment to air dry. Do not reuse solution. Do not rinse sanitized surface.
7. Dispose of package and spent envelope according to instructions on package label.

## **As a sanitizer for stainless steel and other hard, non-porous food contact surfaces such as tanks, transfer lines and other food processing equipment in food processing plants and in restaurants, dairies, beverage and bottling plants, and commissaries:**

1. Activate *Selectroicide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on product label.
2. Remove all gross food particles and soil prior to sanitizing using a pre-flush, pre-scrape or pre-soak treatment.
3. Clean tank, line or surface thoroughly using a suitable detergent and rinse with clean, potable water before sanitizing.
4. Prepare a 5 ppm solution of activated *Selectroicide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 12G, 750MG] and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).
5. To apply: spray, mop, sponge or swab surfaces **OR** fill, flush, immerse or circulate in tanks, lines, and equipment, ensuring the target surfaces remain visibly wet for at least one minute. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
6. After sanitizing, allow surfaces or equipment to air dry. Do not reuse solution. Do not rinse sanitized surface.
7. Dispose of pouch [container] according to instructions on pouch [container] label.

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## **TO CLEAN, SANITIZE OR DISINFECT SHELL EGGS INTENDED FOR FOOD OR FOOD PRODUCTS:**

### **This product will help clean or sanitize or disinfect eggshells**

1. Activate *Selectroicide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label to prepare a solution with the desired concentration between 3 and 100 ppm.

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#### **FOR DISINFECTION AT A CONCENTRATION OF 100 PPM:**

2. Prepare a 100 ppm solution of activated *Selectroicide*® 5G [1G, 12G, 750MG] OR OR prepare a 500 ppm solution [1G, 5G, 12G] and use a 1:5 dilution device (one part 500 ppm solution to four parts water). Minimum contact time is 10 minutes.

#### **FOR SANITIZATION AT A CONCENTRATION OF 5.0 PPM:**

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2. Prepare a 5 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water). Minimum contact time is 5 minutes.

**[FOR CLEANING TREATMENT AT A CONCENTRATION OF 3.0 PPM:] [THIS IS A CLEANING APPLICATION, NON-PUBLIC HEALTH USE.]**

2. Dilute activated *Selectrocide*® 5G [1G, 12G, 750MG] until solution reaches a concentration of 3.0 ppm. Monitor the microbial content of the water and increase or decrease the addition rate of the activated solution as needed. Use ultra-low-range *Selective Micro*® Chlorine Dioxide Test Strips to verify concentration. Minimum contact time is 5 minutes.

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**FOR TREATMENT AT ALL CONCENTRATIONS:**

3. Spray eggs thoroughly with activated solution, making sure that surface area is thoroughly wet. Solution should be equal to or warmer than the eggs, but not to exceed 130° F.
4. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not rinse treated surfaces. Do not reuse solution.

Eggs that have been sanitized with this chlorine dioxide compound may be broken in the manufacture of egg products without a prior potable water rinse. Eggs must be reasonably dry before casing or breaking.

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## **DISINFECTANT FOR BEVERAGE AND WATER SYSTEMS AND LINES**

**To disinfect lines, holding tanks and other equipment used in fountain drink or other beverage preparation, storage, transfer and dispensing operations or to disinfect the lines and storage tanks of potable water storage systems aboard aircraft, boats and RVs (clean-in-place applications):**

Prior to disinfecting, tanks should be cleaned and then flushed thoroughly with clean, potable water.

**FOR A TEN (10) MINUTE OR LONGER DISINFECTION**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:5 dilution device (one part 500 ppm solution to four parts water).
3. **Fill tank completely with 100 ppm solution** (filling the tank completely may require activation of several 5G [1G, 12G, 750MG] envelopes). Run solution through transfer lines and appliances until green solution appears at the outlets. Top-off tank with solution. Circulate or let stand in tank and lines for at least ten (10) minutes
4. Drain tanks and lines. Rinse with potable water.
5. Dispose of package and spent envelope according to instructions on package label.

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## **SANITIZATION AND GENERAL CLEANING APPLICATIONS FOR WATER LINES AND TANKS IN POTABLE WATER SYSTEMS**

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**This product will reduce microbial populations in the potable water holding tanks and lines of recreational vehicles (RVs) and boats; in marine and RV wastewater tanks and lines; in fountain drink or other beverage preparation, storage, transfer and dispensing lines and equipment; and in coolers, thermoses, plastic water bottles, and other water-storing and dispensing systems used for picnics, camping, and other recreational activities. In addition, it will clean, eliminate odors, and remove organic matter. These uses must be followed by a potable water rinse.**

NOTE: If the tank system is cleaned frequently, then consider the level of contamination to be **low to moderate**. If the tank system is used heavily, notably fouled, cleaned irregularly, or going into or coming out of overwintering, then consider the tank(s) level of contamination to be **high**.

1. Based on the judged level of contamination (see box above), determine the number of *Selectrocide*® 5G envelopes necessary to clean the drinking water system in accordance with the table below. Consider all interconnected tanks in the system as one. [For example: A system with two 250-gallon tanks has a total capacity of 500 gallons. At low to moderate contamination, use one (1) *Selectrocide*® 5G envelope; at high levels of contamination, use three (3) 5G envelopes.]

THEN, EITHER FOLLOW STEPS 2 and 3 **OR**  
STEPS 4 and 5

2. Drain all water tanks completely. Then, refill tanks with water to approximately 10-20% of capacity (for example, a 250- gallon tank should be filled with 25 gallons of water).
3. Activate the appropriate number of *Selectrocide*® 5G envelopes (see step 1 above and note there is one envelope within each package) according to “Directions for Use” on package label by immersing the envelopes in the water tank, closing the tanks, and waiting two (2) hours. Remove spent 5G envelopes from water and close the tank.

**OR**

4. Activate the appropriate number of *Selectrocide*® 5G envelopes (there is one envelope within each package. A single 5G activates at full strength, 500 ppm, in 10 liters of water) according to the “Directions for Use” on package label and according to the following table:

FOR TANKS OF THIS OVERALL SIZE		AND WITH <b>LOW to MODERATE</b> LEVELS OF CONTAMINATION		AND WITH <b>HIGH LEVEL OF</b> CONTAMINATION		Concentration created
<b>More than:</b>	<b>Less Than:</b>	IMMERSE THIS NUMBER OF <b>5G</b> ENVELOPES	IN THIS MUCH WATER	IMMERSE THIS NUMBER OF	IN THIS MUCH WATER	Low to moderate/ High
50 gallons	250 gallons	1	90 liters/25 gallons	1	90 liters/25 gallons	50ppm/50ppm
250 gallons	500 gallons	1	185 liters/50 gallons	2	185 liters/50 gallons	25ppm/50ppm
500 gallons	800 gallons	1	470 liters/125 gallons	3	284 liters/75 gallons	10ppm/50ppm
800 gallons	1100 gallons	2	947 liters/250 gallons	4	379 liters/100 gallons	10ppm/50ppm
1100 gallons	1300 gallons	2	947 liters/250 gallons	6	568 liters/150 gallons	10ppm/50ppm
1300 gallons	1600 gallons	3	568 liters/150 gallons	6	568 liters/150 gallons	25ppm/50ppm
1600 gallons	2000 gallons	4	750 liters/200 gallons	8	750 liters/200 gallons	25ppm/50ppm

5. Remove and discard spent envelopes according to package instructions and add solution into the water tank. **Do not add additional water. Do not refill tank. Close the tank.**

Note: Verify concentration using Selective Micro<sup>®</sup> Test Strips. For concentrations above 10 ppm, use Selective Micro<sup>®</sup> Wide Range test strips; for concentrations of 10 ppm or less, use Selective Micro<sup>®</sup> Low Range test strips.

**THEN:**

6. Circulate the *Selectrocide*<sup>®</sup> 5G solution through all lines and within or between tanks using the system's pumps.
7. Run approximately 6 ounces of the *Selectrocide*<sup>®</sup> 5G solution through each outlet (faucet, shower etc.) and let the solution stand in the tanks and lines **OVERNIGHT** (or approximately 12 hours).
8. The next day, or after 12 hours, flush the *Selectrocide*<sup>®</sup> 5G solution through all faucets and outlets until the tanks are empty.
9. Refill the tanks with rinse water to approximately 10-20% of their capacity (e.g., 25 gallons per 250 gallons capacity).
10. Circulate the water and flush rinse water through all faucets and outlets until tanks are empty.
11. Tanks are now cleaned and can be refilled for use or left empty for storage.
12. Dispose of package(s) and spent 5G envelope(s) according to instructions on package label

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**FOR APPLICATIONS INVOLVING LARGER TANKS (UP TO 10,000-GALLON CAPACITY), USE THE 12G PRODUCTS AND FOLLOW THESE STEPS:**

1. Based on the judged level of contamination (see box at beginning of this application section), determine the number of *Selectrocide*<sup>®</sup> 12G envelopes necessary to clean the tanks and lines in the water system according to the following table:

FOR TANKS OF THIS OVERALL SIZE		FILL WITH APPROXIMATELY THIS MUCH WATER (≈ 5-20% of capacity)	FOR LOW-MODERATE LEVELS OF CONTAMINATION: IMMERSE THIS NUMBER OF G-SERIES ENVELOPES	FILL WITH APPROXIMATELY THIS MUCH WATER (≈ 5-20% of capacity)	FOR HIGH LEVELS OF CONTAMINATION IMMERSE THIS NUMBER OF G-SERIES ENVELOPES
More than:	Less Than:		# of 12G envelopes immersed and resulting concentration created		# of 12G envelopes immersed and resulting concentration created
50 gal.	500 gal.	227 liters/60 gal.	1 (50 ppm)	227 liters/60 gal.	1 (50 ppm)
500 gal.	1,000 gal.	454 liters/120 gal.	1 (25 ppm)	454 liters/120 gal.	2 (50 ppm)
1,000 gal.	1,500 gal.	454 liters/120 gal.	1 (25 ppm)	681 liters/180 gal.	3 (50 ppm)
1,500 gal.	2,000 gal.	909 liters/240 gal.	2 (25 ppm)	909 liters/240 gal.	4 (50 ppm)
2,000 gal.	2,500 gal.	909 liters/240 gal.	2 (25 ppm)	909 liters/240 gal.	4 (50 ppm)
2,500 gal.	3,000 gal.	909 liters/240 gal.	2 (25 ppm)	1136 liters/300 gal.	5 (50 ppm)
3,000 gal.	3,500 gal.	1,363 liters/360 gal.	3 (25 ppm)	1363 liters/360 gal.	6 (50 ppm)
3,500 gal.	4,000 gal.	1,363 liters/360 gal.	3 (25 ppm)	1590 liters/420 gal.	7 (50 ppm)
4,000 gal.	5,000 gal.	1,817 liters/480 gal.	4 (25 ppm)	1817 liters/480 gal.	8 (50 ppm)
5,000 gal.	6,000 gal.	2,271 liters/600 gal.	5 (25 ppm)	2271 liters/600 gal.	10 (50 ppm)

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6,000 gal.	7,500 gal.	2,726 liters/720 gal.	6 (25 ppm)	2726 liters/720 gal.	12 (50 ppm)
7,500 gal.	10,000 gal.	3,180 liters/840 gal.	7 (25 ppm)	3634 liters/960 gal.	16 (50 ppm)

Note: Verify concentration using Selective Micro® Test Strips. For concentrations above 10 ppm, use Selective Micro® Wide Range test strips; for concentrations of 10 ppm or less, use Selective Micro® Low Range test strips.

2. Drain all water tanks completely. Then, refill tanks to approximately 10-20% of capacity with potable water. *For example*, put 50 gallons (approximately 185 liters) of water in a tank of 500-gallon capacity and 250 gallons (approximately 945 liters) of water in a tank of 2,500-gallon capacity. Immerse the number of *Selectrocide*® 12G envelopes (as determined in step 1 above in the water tank). **Do not add additional water. Do not refill tank. Close the tank.**
3. Wait 2 hours for the *Selectrocide*® 12G to generate, and then remove the spent envelopes. Close the tank. Discard envelopes according to the instructions on the package label.
4. Circulate the *Selectrocide*® 12G solution through all lines and within or between tanks using the system's pumps.
5. Run approximately 6 ounces of the *Selectrocide*® 12G solution through each outlet (faucet, shower etc.) and let the solution stand in the tanks and lines **OVERNIGHT** (approximately 12 hours).
6. The next day, or after twelve hours, flush the *Selectrocide*® 12G solution through all faucets and outlets until the tanks are empty.
7. Refill the tanks with rinse water to approximately 10% of their capacity.
8. Circulate the water and flush rinse water through all faucets and outlets until tanks are empty.
9. Tanks are now cleaned and can be refilled for use or left empty for storage
10. Dispose of package(s) and spent *Selectrocide*® 12G envelope(s) according to instructions on package label.

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## USES IN INDUSTRIAL FLUID LINES AND SYSTEMS

**This product can be used in the sanitization treatment of milking equipment and pasteurizers, stainless steel transfer lines, hydrocoolers, and ice-making machinery.**

### A. Sanitization treatment of milking equipment:

Prior to sanitization, ensure that milking equipment is adequately cleaned according to manufacturer specifications. Milking equipment should be treated within thirty (30) minutes before each milking cycle.

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Disassemble from milking equipment all parts that require sanitization by-hand.
3. Prepare a 5 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).
4. Fill basin with solution. Minimum contact time is 5 minutes.
5. Dip parts in solution. Do not rinse.
6. Reattach sanitized parts to milking equipment.
7. Using a dosing pump, cycle 5 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] through pipeline for 5 minutes immediately before milking cycle. Ensure that the temperature of the activated *Selectrocide*® 5G [1G, 12G, 750MG] is between 100°F and 110°F.
8. Fully drain solution from pipeline.
9. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse solution.

### B. Sanitization treatment of stainless steel transfer lines, hydrocoolers, and pasteurizers:

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
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2. Prepare a solution of a suitable detergent. Run solution through lines for preliminary cleaning.
3. Run a rinse of potable water through the line.
4. Prepare a 20 ppm solution of activated *Selectroicide*® 5G [1G, 12G, 750MG] directly in accordance with instructions OR prepare a 500 ppm solution of *Selectroicide*® 5G [1G, 5G, 12G] and use a 1:25 dilution device (one part 500 ppm solution to 24 parts water).
5. Fill lines with solution. Minimum contact time is 5 minutes.
6. Fully drain solution from lines and allow to air dry before next use.
7. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse solution. Do not rinse treated surfaces.

### **C. Sanitization treatment of ice-making machinery:**

1. Activate *Selectroicide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Disassemble ice-making machinery.
3. Clean parts using a suitable detergent. Rinse parts with potable water and let air dry. Minimum contact time is 5 minutes. Reassemble machinery.
4. Using a dosing pump, add activated *Selectroicide*® 5G [1G, 12G, 750MG] directly in accordance with instructions OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] to incoming waterline of ice-making machinery ensuring that any residual chlorine dioxide is at or below 0.8 ppm in accordance with EPA SDWA.
5. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse solution. Do not rinse treated surfaces.

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## **LABORATORY EQUIPMENT SURFACES OF WATER BATHS**

**This product can be used in the disinfecting treatment of surfaces of water baths meant for use in laboratories.**

1. Activate *Selectroicide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Disconnect water bath from power source and drain bathwater.
3. Scrub hard, nonporous surfaces of bath with soap or other detergent until visible filth is removed. Rinse hard, nonporous surfaces of bath with potable water. Drain bath once more and allow hard, nonporous surfaces to dry. Drain. Allow to air dry just prior to next run start-up.
4. Prepare a 100 ppm solution of activated *Selectroicide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectroicide*® 5G [1G, 12G, 750MG] and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water).
5. Spray or sponge activated solution on hard, nonporous surfaces of bath. For spraying applications, wear a NIOSH/MSHA-approved respirator appropriate for use with chlorine dioxide. All surfaces must be visibly wet for at least ten (10) minutes.
6. Allow surfaces to air dry. Do not reuse solution. Do not rinse disinfected surfaces.
7. Dispose of package(s) and spent envelope(s) according to instructions on package label.

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## **SANITIZING FINAL RINSE OF PRE-CLEANED OR NEW RETURNABLE OR NON-RETURNABLE CONTAINERS**

**This product may be used as a final sanitizing rinse for plastic, glass or metal returnable and non-returnable bottles, cans, caps, kegs, and beverage containers.**

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1. Activate *Selectrocide*® 5G [1G, 12G] according to "Directions for Use" on package label.
2. Wash bottles, cans or containers with detergent or cleaning solution and rinse with potable water.
3. Prepare a 30 ppm solution by activating *Selectrocide*® 5G [1G, 12G] by preparing a 500 ppm solution [1G, 5G, 12G] and using a 6:100 dilution device (six parts 500 ppm solution to 94 parts water).

**TO ACTIVATE SELECTROCIDE® G-SERIES PRODUCTS  
DIRECTLY TO 30 PPM INSIDE A CLOSED CONTAINER:**

Immerse the <i>Selectrocide</i> ® 1G in this amount of clean, potable water for at least two (2) hours; remove within 4 hrs.	Immerse the <i>Selectrocide</i> ® 5G in this amount of clean, potable water for at least two (2) hours; remove within 48 hrs.	Immerse the <i>Selectrocide</i> ® 12G in this amount of clean, potable water for at least two (2) hours; remove within 48 hrs.
42 liters (11 gallons)	167 liters (44 gallons)	400 liters (105 gallons)

Note: Verify concentration using Selective Micro® Test Strips. For concentrations above 10 ppm, use Selective Micro® Wide Range test strips; for concentrations of 10 ppm or less, use Selective Micro® Low Range test strips

4. To apply: rinse interior and exterior surfaces with the 30 ppm solutions by spraying, sponging, swabbing, or swirling, or immersing in a manner that ensures the target surfaces become visibly wet, for a contact time of 1 minute (including drying time). (If applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.)
5. Allow to drain dry.

**For a 5 ppm rinse:**

1. Activate *Selectrocide*® 5G [*Selectrocide*® 1G, 12G] according to "Directions for Use" on the pouch label.
2. Wash bottles, cans or containers with detergent or cleaning solution and rinse with potable water.
3. Prepare a 5 ppm solution of activated *Selectrocide*® 5G [1G, 12G] OR prepare a 500 ppm solution with any of the G-series products and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water) to achieve target concentration of 5 ppm.

**TO ACTIVATE SELECTROCIDE® G-SERIES PRODUCTS  
DIRECTLY TO 5 PPM INSIDE A CLOSED CONTAINER:**

Immerse the <i>Selectrocide</i> ® 1G in this amount of clean, potable water for at least two (2) hours; remove within 4 hrs.	Immerse the <i>Selectrocide</i> ® 5G in this amount of clean, potable water for at least two (2) hours; remove within 48 hrs.	Immerse the <i>Selectrocide</i> ® 12G in this amount of clean, potable water for at least two (2) hours; remove within 24 hrs.
200 liters (53 gallons)	945 liters (250 gallons)	2,400 liters (634 gallons)

Note: Verify concentration using Selective Micro® Test Strips. For concentrations above 10 ppm, use Selective Micro® Wide Range test strips; for concentrations of 10 ppm or less, use Selective Micro® Low Range test strips.

4. To apply: rinse interior and exterior surfaces with the 5 ppm solutions by spraying, sponging, swabbing, or swirling, or immersing in a manner that ensures the target surfaces become visibly wet for a contact time of 1 minute (including drying time). (If applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide).
5. Allow to drain dry.

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## DISINFECTING, SANITIZING/ANTIMICROBIAL AND GENERAL CLEANING APPLICATIONS IN WINERIES

**This product will disinfect, sanitize, and clean winemaking equipment and environmental surfaces in wineries. It is effective against microbes and spoilage organisms on all non-porous surfaces including picking bins, crushers, transfer lines/hoses/pipes, tanks, drains, pumps, presses, de-stemmers, sealed concrete floors and walls, steel cutting boards/surfaces, sumps, valves and tri-clover fittings, pruning shears, and steel wine barrels.**

**NOTE:** 1. For additional information on label applications or to discuss other winery-specific application issues, contact Selective Micro Technologies' service personnel.  
2. This product does not produce Trichloroanisol (TCA) or precursor Trichlorophenol (TCP) by chemical reaction in red wine or in cooperage oak, and therefore does not contribute to the off odors associated with the former.

### **A. Disinfecting and sanitizing applications for winery equipment and environmental surfaces (including all non-porous materials and surfaces, such as transfer hoses and pipes, and other items listed above):**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Disinfecting Applications. For disinfecting applications, prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 750MG, 12G] directly in accordance with instructions above OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 750MG, 12G] and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water).  
Sanitizing Applications on hard, food-contact surfaces. For sanitizing applications on hard, food-contact surfaces, prepare a 5 ppm solution of activated *Selectrocide*® 5G [1G, 750MG, 12G] directly in accordance with instructions above OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 750MG, 12G] and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).  
Sanitizing Applications on hard, non-food-contact surfaces. For sanitizing applications on hard, non-food-contact surfaces, prepare a 20 ppm solution of activated *Selectrocide*® 5G [1G, 750MG, 12G] directly in accordance with instructions above OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 750MG, 12G] and use a 1:25 dilution device (one part 500 ppm solution to 24 parts water).
3. Apply to target surfaces with mop, sponge, or spray OR fill, flush, immerse or circulate in tanks, lines and equipment, ensuring surfaces remain visibly wet for the following contact times:
  - Disinfection (100 ppm): 10 minutes
  - Sanitizing hard food-contact surfaces (5 ppm): 1 minute
  - Sanitizing hard non-food contact surfaces (20 ppm): 5 minutes
4. Dispose of package and spent envelope according to instructions on package label.

### **B. For sanitizing and cleaning tanks and associated connections, pipes, and hoses:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on product label.
  2. Place the tank washer in the middle of the tank with the attached hose extending through the racking door. Cover door with plastic tarp.
  3. Place all rubber gaskets inside the tank and leave bottom valve open to drain into tub.
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- NOTE: Ensure man-door on top of tank is closed and bolted.
- Place 50 gallons of warm (not hotter than 160°F) water into the sump. To water, add:
    - For tanks not heavily soiled: Add one scoop (about 2 pounds) of caustic (e.g., 270 Xtra)
    - For heavily soiled tanks: Add one scoop (about 2 pounds) of more aggressive caustic (e.g., 231 Xtra)
  - Turn on the pump and start the tank washer, running solution of caustic for about 20 minutes.
  - Check the inside surfaces of tank visually to ensure they are clean; if not, repeat steps 4-5.
  - Rinse the tank with cold water for 5 minutes.
  - Fill the tub with 50 gallons of warm (100°F or lower) water, and add one scoop (about 2 pounds) of citric acid to tub.
  - Add 2 liters of *Selectrocide*® stock solution (500 ppm) to achieve a 5 ppm concentration in tank.
  - Start the pump and tank washer, and run citric solution for 20 minutes.
  - After 20 minutes, use Selective Micro® Chlorine Dioxide Test Strips to determine concentration of chlorine dioxide. Discard solution if strips indicate less than 5 ppm. (If strips register 5 ppm, then solution can be reused to sanitize another tank.)
  - Drain tank of citric solution, and rinse with cold water for 5 minutes.
  - Restore system to the operating mode.
  - Dispose of package and spent envelope according to instructions on package label.

## DISINFECTING, SANITIZING/ANTIMICROBIAL AND GENERAL CLEANING APPLICATIONS IN BREWERIES

**This product will disinfect, sanitize, and clean brewing equipment and environmental surfaces in breweries. It is effective against microbes and spoilage organisms on all non-porous surfaces including tanks, bins, transfer lines/hoses/pipes, drains, fittings, pumps, sealed concrete floors and walls, steel surfaces, sumps, and valves.**

**NOTE: For additional information on label applications or to discuss other brewery-specific application issues, contact Selective Micro Technologies' service personnel.**

### **A. Disinfecting and sanitizing applications for brewery equipment and environmental surfaces (including all non-porous materials and surfaces, such as transfer hoses and pipes, and other items listed above):**

- Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
- Disinfecting Applications. For disinfecting applications, prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G] directly in accordance with instructions above OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water).  
Sanitizing Applications on hard, food-contact surfaces. For sanitizing applications on hard, food-contact surfaces, prepare a 5 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] directly in accordance with instructions above OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).  
Sanitizing Applications on hard, non-food-contact surfaces. For sanitizing applications on hard, non-food-contact surfaces, prepare a 20 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] directly in accordance with instructions above OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:25 dilution device (one part 500 ppm solution to 24 parts water).
- Apply to target surfaces with mop, sponge, or spray **OR** fill, flush, immerse or circulate in tanks, lines and equipment, ensuring surfaces remain visibly wet for the following contact times:
  - Disinfection (100 ppm): 10 minutes

- Sanitizing hard food-contact surfaces (5 ppm): 1 minute
- Sanitizing hard non-food contact surfaces (20 ppm): 5 minutes
- 4. Dispose of package and spent envelope according to instructions on package label.

## **B. For sanitizing and cleaning tanks and associated transfer lines, hoses, pipes, connections, drains, fittings, and pumps.**

Use the below protocol in normal CIP protocol for sanitizing step. Use normal volume of solution.

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label. Prepare a 5 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] directly in accordance with instructions above OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).
2. Allow solution to run through CIP system for 5-10 minutes. After cycle is finished, use chlorine dioxide test strips to verify the strength of solution. If below 5 ppm, discard solution. If readings show 5 ppm, solution can be used again for sanitizing.

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## **DISINFECTION OF BATHROOMS, SHOWER ROOMS, LOCKER ROOMS, SPAS, AND LAUNDRY ROOMS**

**To disinfect sinks, toilet bowls, toilet seats, toilet handles, empty baths, showers, changing tables, washers, hair dryers, clothes dryers, hand dryers, sinks, faucets and other hard, non-porous surfaces found in bathrooms, shower rooms, locker rooms, spas, and laundry rooms:**

### **A. Treatment of toilet seats, toilet handles, empty baths, showers, changing tables, washers, hair dryers, clothes dryers, hand dryers, sinks, faucets, and other hard, non-porous surfaces:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Clean all surfaces thoroughly with a suitable detergent and rinse with water prior to disinfection. Ensure that all surfaces have adequate time to air dry before applying *Selectrocide*® solution.
3. Prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 12G] and use a 1:5 dilution device (one part 500 ppm solution to four parts water).
4. Spray, mop or sponge the 100 ppm solution onto surfaces to be disinfected. All surfaces must be visibly wet for at least ten (10) minutes. When spraying disinfectant solution, use an appropriate spraying device. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
5. After disinfecting, allow surfaces or equipment to air dry. Do not reuse solution. Do not rinse disinfected surfaces.
6. Dispose of package and spent envelope according to instructions on package label.

### **B. Treatment of toilet bowls:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
  2. Prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 12G] and use a 1:5 dilution device (one part 500 ppm solution to four parts water). Flush
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- toilet and clean toilet bowl thoroughly with a suitable detergent to ensure that bowl is free of urine and gross filth prior to disinfection.
3. Add *Selectrocide*® 5G [1G, 12G, 750MG] to toilet bowl until concentration of chlorine dioxide in toilet water is 100 ppm. Verify concentration using Selective Micro® Test Strips.
  4. Stir water gently for one minute. Let water sit for 20 minutes, then flush toilet.
  5. Dispose of package and spent envelope according to instructions on package label. Do not reuse solution.

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## DISINFECTING FLOOR DRAINS

**This product can be used in the daily disinfection of floor drains following drain-cleaning processes.**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Prepare a 100 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 12G] and use a 1:5 dilution device. Fill a dark, oxidation-resistant 5-gallon container completely with the 100ppm solution. Secure lid tightly on container.
3. Dispose of package(s) and spent envelope(s) according to instructions on package label.
4. Remove drain cover.
5. Stopper drain pipe with an object (such as a disposable cup) to allow the drain basin to fill.
6. Pour approximately 1 gallon of the activated *Selectrocide*® 5G [1G, 12G, 750MG] into the stopped drain.
7. Reseal container.
8. Allow solution to stand in drain for 10 minutes. If necessary, gently stir solution around drain basin for 1 minute to prevent heavy soil buildup.
9. Remove stopper from drain. Dispose of stopper of in non-food trash location.

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## DISINFECTING AND SANITIZING IN HORTICULTURAL AND HYDROPONIC SETTINGS

**A. To disinfect non-porous hard surfaces, including stainless steel, glazed tile, sealed concrete, and sealed, finished wood used in horticultural applications:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Pre-clean all surfaces prior to application of disinfectant solution. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
3. Prepare solutions in indicated concentrations and ensure surfaces are wetted and remain visibly wet for the times noted below in the instruction number 6 associated with the desired application.
4. Dispose of package and spent envelope according to directions on package label.

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### FOR WORK AREAS, BENCHES AND EVAPORATIVE COOLERS

5. Prepare a 100 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:5 dilution device (one part 500 ppm solution to four parts water).
  6. Spray or swab work area and bench surfaces with the 100 ppm solution before each work period and again after each planting is completed. Spray or swab evaporative cooler surfaces, ensuring visible wetness for at least ten (10) minutes. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
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**FOR POTS, FLATS, FLOWER BUCKETS AND CUTTING TOOLS  
FOR A TEN (10) MINUTE OR LONGER DISINFECTION**

5. Prepare a 100 ppm of *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and dilute by adding one part 500 ppm solution to four parts water.
6. Brush or wash used pots and flats, and then soak in the 100 ppm solution for at least ten (10) minutes before reuse. Soak tools with 100 ppm solution for at least ten (10) minutes.
7. Discard solution in sanitary drain or as ordinary non-hazardous waste. Do not reuse solution.

At end of workday, dry and oil tools.

**B. To sanitize work area non-porous (non-food contact) hard surfaces, hard-surface benches, pots, flats, flower buckets and cutting tools:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according the "Directions for Use" on package label.
2. Pre-clean all surfaces prior to application of sanitizing solution. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
3. Prepare a 20 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] or prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:25 dilution device or add one part 500 ppm solution to 24 parts water.
4. Brush or wash used pots and flats then swab or soak in the 20 ppm solution for at least five (5) minutes before reuse. Spray, swab or soak tools with 20 ppm solution for at least five (5) minutes. Spray or swab work area and bench surfaces before each work period and again after each plant is completed
5. Dispose of package and spent envelope according to instructions on package label. At end of workday, dry and oil tools.

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**GENERAL USE, NON-PUBLIC HEALTH APPLICATIONS**

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**WATER TREATMENT FOR POULTRY DRINKING WATER AND  
SURFACES IN TROUGHS OR METERING AND INJECTION SYSTEMS**

**This product will help control microorganisms in drinking water intended for poultry.**

**A. For systems that use automatic, on-demand metering/injection systems designed primarily for poultry (i.e., systems employing nipples or drip wells as the final water delivery device/method, usually situated in enclosed or protected structures):**

1. Activate *Selectrocide*® 5G [1G, 750MG, 12G] according to "Directions for Use" on product label
  2. Prepare a stock solution of *Selectrocide*® 5G [1G, 750MG, 12G] at a concentration of 500 ppm.
  3. If activation vessel is different from feeder tank, transfer stock solution (500 ppm) to feeder tank. To maintain concentration, ensure that feeder tank is covered.
  4. Operate system according to standard operating protocol, using a 1:500-1:100 injection device (one part solution to 99 parts water) for a concentration of 1-5 ppm.
  5. Using *Selective Micro*® Chlorine Dioxide Test Strips, confirm concentrations of stock solution (500 ppm) and end-use solution up to 5 ppm but not less than an application concentration sufficient to ensure a residual concentration of 0.25 ppm.
  6. Dispose of pouch [container] according to instructions on pouch [container] label.
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Note: Clean and remove accumulations of organic matter in delivery lines on a regular basis. (See, for example, label and technical bulletin instructions for this product under the heading “Sanitization and General Cleaning Applications for Potable Water Systems.”)

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## **B. For trough-based systems.**

1. Activate *Selectrocide*® 5G [1G, 750MG, 12G] according to "Directions for Use" on product label.
2. Prepare a stock solution of *Selectrocide*® 5G [1G, 750MG, 12G] at a concentration of 500 ppm.
3. If activation vessel is different from feeder tank, transfer stock solution (500 ppm) to feeder tank. To maintain concentration, ensure that feeder tank is covered.
4. Add chlorine dioxide concentrate at a ratio of 1:500-1:100 to achieve a final use concentration of 1-5 ppm.
5. Using *Selective Micro*® *Chlorine Dioxide Test Strips*, confirm concentrations of stock solution (500 ppm) and end-use solution up to 5 ppm but not less than an application concentration sufficient to ensure a residual concentration of 0.25 ppm.
6. Dispose of pouch [container] according to instructions on pouch [container] label.

Note: Clean and remove accumulations of organic matter in troughs on a regular basis.

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## **WATER TREATMENT FOR THE DRINKING WATER FOR LIVESTOCK, POULTRY, FUR, AND WOOL-BEARING ANIMALS**

**This product will help control microorganisms in drinking water intended for livestock, poultry, fur, and wool-bearing animals.**

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**For systems that use automatic, on-demand metering/injection systems designed primarily for livestock, poultry, fur- and wool- bearing animals (i.e., systems employing nipples or drip wells as the final water delivery device/method, usually situated in enclosed or protected structures):**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on product label.
2. If activation vessel is different from feeder tank, transfer stock solution (500 ppm) to feeder tank. To maintain concentration, ensure that feeder tank is covered.
3. Operate system according to standard operating protocol, using a 1:100 injection device (one part solution to 99 parts water) for a concentration of 5 ppm.
4. Confirm concentrations of stock solution (500 ppm) and end-use solution up to 5 ppm but not less than an application concentration sufficient to ensure a residual concentration of 0.25 ppm using *Selective Micro*® *Chlorine Dioxide Test Strips*.
5. Dispose of package and spent envelope according to instructions on package label.

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## **TO CONTROL THE BUILDUP OF SLIME AND ODOR-CAUSING BACTERIA IN BOILER FEED WATERS**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to “Directions for Use” on the product label.
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2. Prepare a 5 ppm solution of activated *Selectroicide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution with any of the G-series products and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water) to achieve target concentration of 5 ppm.
3. Feed water should be treated at a rate of 5 ppm available ClO<sub>2</sub> and may be injected or applied in batch-loads. Feed water storage tanks should be sufficiently sealed to prevent outside contamination and direct sunlight.
4. Spray solution on all hard, nonporous surfaces in vents or ducts. Allow surfaces to dry for at least thirty minutes (or longer if possible). For all spraying applications, wear a NIOSH/MSHA-approved respirator appropriate for use with chlorine dioxide.
5. After treating, allow surfaces or equipment to air dry. Do not reuse solution. Do not rinse treated surfaces.
6. Dispose of package(s) and spent envelope(s) according to instructions on package label.

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## **DEODORIZING AND GENERAL CLEANING USES FOR NON-POTABLE WATER APPLICATIONS INVOLVING RECIRCULATING WATER SYSTEMS (E.G., COOLING TOWERS, PAPER MILLS, AND DECORATIVE OR ORNAMENTAL FOUNTAINS)**

**This product will help remove, control and inhibit reemergence of slimes, algae, bacteria, and other organic buildups in recirculating cooling water systems, including cooling towers and decorative or ornamental fountains. It can be used as a periodic treatment or during continuous operations in deodorizing or treatment applications involving algae, or bacteria.**

1. Activate *Selectroicide*® [1G, 5G, 750MG, 12G] according to “Directions for Use” on package label.
2. Prepare a 500 ppm solution of activated *Selectroicide*® [1G, 5G, 750MG, 12G] in accordance with label instructions.
3. Where possible, pre-clean surfaces prior to application. Flush tanks or water system with clean water.
4. Apply/add the 500-ppm solution to the tank water or water stream at a point in the system or in a manner which minimizes turbulence and exposure to the air.
5. Dispose of package(s) and spent envelope(s) according to instructions on package label.

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### **AS AN INITIAL OR REMEDIAL TREATMENT FOR RECIRCULATING COOLING WATER SYSTEMS, WATER HOLDING TANKS AND DECORATIVE AND ORNAMENTAL FOUNTAINS**

6. For each 1,000 gallons of cooling or fountain water add 10 gallons of the 500 ppm solution to achieve a 5 ppm residual chlorine dioxide level. Circulate water in normal operation of the system.
7. Check residual chlorine dioxide concentration using *Selective Micro*® Chlorine Dioxide Test Strips. If residual chlorine dioxide concentration is below 5 ppm, add additional 500 ppm solution until solution reaches 5 ppm; verify with Test Strips.
8. Repeat daily until desired results are achieved.

### **FOR CONTINUOUS TREATMENT TO INHIBIT THE RE-ESTABLISHMENT OF SLIME, ALGAE, OR BACTERIA**

6. For each 1,000 gallons of cooling or fountain water add 1 gallon of the 500 ppm solution to achieve approximately 0.5 ppm residual chlorine dioxide concentration. Circulate water in normal operation of the system.
  7. Check residual chlorine dioxide concentration using *Selective Micro*® Chlorine Dioxide Test Strips. If residual chlorine dioxide concentration falls below 0.1 ppm, add more 500 ppm solution (about 1 gallon of the 500 ppm solution for each 1,000 gallons of cooling or fountain water) to increase the residual chlorine dioxide concentration to about 0.5 ppm. Verify concentration with Test Strips.
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**INSTRUCTIONS WHEN USING A DOSING PUMP AS AN INITIAL OR REMEDIAL  
TREATMENT FOR RECIRCULATING COOLING WATER SYSTEMS, WATER HOLDING  
TANKS AND DECORATIVE AND ORNAMENTAL FOUNTAINS**

6. For each 1,000 gallons of cooling or fountain water set the dosing pump to run a sufficient time to deliver approximately 10 gallons of the 500 ppm solution to the system.
7. Check residual chlorine dioxide concentration using *Selective Micro<sup>®</sup> Chlorine Dioxide Test Strips*. If residual chlorine dioxide concentration is below 5 ppm, add additional 500 ppm solution until solution reaches 5 ppm; verify with *Test Strips*.
8. Repeat daily until desired results are achieved.

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**INSTRUCTIONS WHEN USING A DOSING PUMP FOR CONTINUOUS TREATMENT TO  
INHIBIT THE RE-ESTABLISHMENT OF SLIME, ALGAE, OR BACTERIA**

6. Set the dosing pump to achieve a continuous concentration of chlorine dioxide between 0.25 ppm and 0.5 ppm. In order to maintain this concentration and the appropriate dosing, consider the volume of water in the system, half-life (makeup/blowdown rate), evaporative rate and windage loss of the system.
7. Check residual chlorine dioxide concentration using *Selective Micro<sup>®</sup> Chlorine Dioxide Test Strips*. If residual chlorine dioxide concentration falls below 0.25 ppm, increase the dosage rate.

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**FOR PERIODIC TREATMENT TO INHIBIT THE RE-ESTABLISHMENT OF SLIME, ALGAE, OR  
BACTERIA**

6. For each 1,000 gallons of cooling or fountain water add 1 gallon of the 500 ppm solution to achieve approximately 0.5 ppm residual chlorine dioxide concentration. Circulate water in normal operation of the system. Check residual chlorine dioxide concentration using *Selective Micro<sup>®</sup> Chlorine Dioxide Test Strips*.
7. Repeat weekly or on first indications of increased slime, algae or bacteria.

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**GENERAL CLEANING APPLICATIONS  
FOR HIGH-PURITY AND OTHER WATER SYSTEMS  
AND ASSOCIATED MEMBRANES**

**(e.g., REVERSE OSMOSIS (RO) AND ULTRA FILTER (UF)  
MEMBRANES)**

**This product will clean high-purity and other water distribution systems by eliminating odors, removing organic matter, and reducing the microbial populations in system components, lines, tanks, and associated RO & UF membranes.**

This product, when used as directed:

- (1) cleans
- (2) removes organic matter
- (3) reduces biological fouling
- (4) eliminates odors
- (5) reduces microbial populations

**NOTE: 1. Because chlorine dioxide does not ionize and exists as a true gas in aqueous solution, it passes through filtration membranes even at low trans-membrane pressures. This allows both the feed and permeate sides of a membrane to be cleaned simultaneously. Chlorine dioxide's true gaseous state enhances its efficacy and facilitates rapid flush-out from water systems.**

1. Activate *Selectrocid*<sup>®</sup> 5G [1G, 750MG, 12G] according to "Directions for Use" on package label.
  2. Prepare a 50 ppm solution of activated *Selectrocid*<sup>®</sup> 5G [1G, 750MG, 12G] directly in accordance with instructions above OR prepare a 500 ppm solution and use a 1:10 dilution device (one part 500 ppm solution to nine parts water).
  3. Make the typical plumbing or valve setting changes used during normal system cleaning cycle.
    - a. If applying a 500 ppm solution using a dosing pump set at an injection rate of 10% on the feed line, direct the RO or UF permeate and reject streams to an authorized drain.
    - b. If applying a 50 ppm solution directly with a self-priming injection pump, the RO or UF permeate and reject streams can be returned to the vessel containing the 50 ppm solution (closed-loop operation).
  4. Bypass or shut off process control settings that, during normal production, would normally shut down the RO or UF unit.
  5. Remove or bypass activated carbon cartridges. Turn off (or disable) power to any UV lights. Inject 50 ppm solution. Flow rate should be low enough that little or no solids resting in the system are displaced by the feed.
  6. Continue injection until the concentration in the product stream is approximately equal to the concentration in the reject stream (with clear flow meters, the distinctive green color of aqueous chlorine dioxide can be observed). Verify product stream and reject stream concentrations are approximately the same using *Selective Micro*<sup>®</sup> Chlorine Dioxide Test Strips (High Range).
  7. Discontinue injection once concentrations become nearly equal.
  8. Allow a minimum 20-minute static soak. If the system were known to have had a high level of biological contamination, use a 60-minute soak and inject additional chlorine dioxide (as above) about 30 minutes into the soaking period. Re-verify approximate equality of product and reject stream concentrations, as above (instruction number 7).
- After appropriate soak time, flush the solution from the RO or UF module:
- a. Drain (remove) chlorine dioxide solution from break tanks or other holding tanks in the system.
  - b. Replace the chlorine dioxide solution with potable water.
  - c. Monitor the product and reject streams for color until both appear to be clear.
  - d. Check the streams using *Selective Micro*<sup>®</sup> Chlorine Dioxide Test Strips (Low Range) until both streams register concentrations of 1 ppm or lower.
  - e. When both streams confirm at concentrations at or below 1 ppm, discontinue flush.
9. Restore system to the operating mode.
  10. Dispose of package and spent envelope according to instructions on package label. Do not reuse solution.

## DEODORIZATION APPLICATIONS

**This product can be used to in the treatment of strong odors in confined spaces.**

### **A. Deodorization of animal holding rooms, sick rooms, morgues, and work rooms:**

1. Activate *Selectrocid*<sup>®</sup> 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Thoroughly clean all surfaces before treatment.
3. Deodorization Applications. For deodorization applications, prepare a 100 ppm solution of activated *Selectrocid*<sup>®</sup> 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectrocid*<sup>®</sup> 5G [1G, 12G,

750MG] and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water). Spray the solution onto walls, ceilings, floors, and other hard, non-porous surfaces until surfaces are lightly damp. For spraying applications, wear a NIOSH/MSHA-approved respirator appropriate for use with chlorine dioxide.

4. Allow treated surfaces to air dry and then ventilate the area. Do not reuse solution. Do not rinse treated surfaces.
5. Dispose of package(s) and spent envelope(s) according to instructions on package label.

## **B. Deodorization of restrooms/bathrooms, refuse containers, diaper pails, and storage lockers:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Thoroughly clean all surfaces before treatment.
3. Deodorization Applications. For deodorization applications, prepare a 50 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] directly in accordance with instructions above OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 750MG, 12G] and use a 1:10 dilution device (one part 500 ppm solution to 9 parts water).
4. Spray the solution onto walls, ceilings, floors, and other hard, non-porous surfaces until surfaces are lightly damp. For spraying applications, wear a NIOSH/MSHA-approved respirator appropriate for use with chlorine dioxide.
5. Allow treated surfaces to air dry and then ventilate the area. Do not reuse solution. Do not rinse treated surfaces.
6. Dispose of package(s) and spent envelope(s) according to instructions on package label.

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## **OIL AND GAS INDUSTRY APPLICATIONS**

**This product can be used in the deodorizing treatment of water used in the hydro testing of pipelines and vessels, pipeline pigging and scraping operations, and treatment of drilling, packer, completion, work over and fracturing fluid.**

### **A. For deodorizing treatment of water used in the hydro testing of pipelines and vessels:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on product label.
2. Using a dosing pump, add activated *Selectrocide*® 5G [1G, 12G, 750MG] until hydro testing water reaches a concentration of 100 ppm (required concentration levels vary according to site-specific conditions—monitor the microbial content of the water and increase or decrease the addition rate of the activated solution as needed).
3. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse.

### **B. For cleaning use in pipeline pigging and scraping operations:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on product label.
  2. Add activated *Selectrocide*® 5G [1G, 12G, 750MG] via a dosing pump to a slug of water immediately following the scraper. Ideally, this water volume can be kept to a minimum and contained between the scraper and a trailing pig.
  3. Add activated solution until the water at the discharge point or pig trap reaches a concentration of 100 ppm chlorine dioxide (required concentration levels vary according to site-specific conditions—monitor the microbial content of the water and increase or decrease the addition rate of the activated solution as needed).
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4. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse.

### **C. For deodorizing treatment of drilling, packer, completion, work over and fracturing fluids:**

1. Activate *Selectrocide*® 5G [1G, 12G] according to "Directions for Use" on product label.
2. Prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water).
3. Add activated *Selectrocide*® 5G [1G, 12G, 750MG] at a point where uniform mixing of the fluids and the activated solution will occur.
4. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse.

### **D. Deodorizing Control in Oil Wells and Petroleum Systems**

For use with *Selectrocide*® 5G [1G, 12G]:

Chlorine Dioxide is effective in the remediation of bacteria and sulfide contamination commonly found in oil field production, injection and disposal fluids. The required dosages will vary with process conditions. Chlorine dioxide may be applied either continuously or intermittently into oil well production water as it is separated from the oil or before it is injected into the well. For continuous feeds, chlorine dioxide may be applied at dosages slightly higher than sulfide's oxidative demand as determined by a demand study. For intermittent treatment, chlorine dioxide should be applied at shock dosages from 100-3000 ppm.

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## **VEHICULAR APPLICATIONS**

**This product can be used in the deodorizing treatment of vehicle interiors, water used in the washing of vehicles, and transportation, loading, hauling equipment, and other heavy machinery.**

### **A. Deodorizing treatment of vehicle interiors:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Thoroughly clean all surfaces before treatment.
3. Deodorization Applications. For deodorization applications, prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water). Spray the solution onto walls, ceilings, floors, and other hard, non-porous surfaces until surfaces are lightly damp. For spraying applications, wear a NIOSH/MSHA-approved respirator appropriate for use with chlorine dioxide.
4. Spray the solution onto walls, ceilings, floors, and other hard, non-porous surfaces until surfaces are lightly damp. For spraying applications, wear a NIOSH/MSHA-approved respirator appropriate for use with chlorine dioxide.
5. Allow treated surfaces to air dry and then ventilate the vehicle. Do not reuse solution. Do not rinse treated surfaces.
6. Dispose of package(s) and spent envelope(s) according to instructions on package label.

### **B. Deodorizing treatment of vehicle wash water:**

1. Based on the table below, determine the number of *Selectrocide*® 12G envelopes necessary to clean the tanks and lines in the vehicle wash water system:
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FOR TANKS OF THIS OVERALL SIZE		FOR LOW-MODERATE LEVELS OF CONTAMINATION IMMERSE THIS NUMBER OF G-SERIES ENVELOPES
More than:	Less Than:	<sup>1</sup> 12G and created concentration created
50 gal.	500 gal.	1 (63-6.3ppm)
500 gal.	1,000 gal.	1 (6.3-3.2 ppm)
1,000 gal.	1,500 gal.	2 (6.3-4.2 ppm)
1,500 gal.	2,000 gal.	2 (4.2-3.2 ppm)
2,000 gal.	2,500 gal.	3 (4.7-3.8 ppm)
2,500 gal.	3,000 gal.	4 (5-4.2 ppm)
3,000 gal.	3,500 gal.	4 (4.2-3.6 ppm)
3,500 gal.	4,000 gal.	5 (4.5-4 ppm)
4,000 gal.	5,000 gal.	5 (4-3.2 ppm)
5,000 gal.	6,000 gal.	6 (3.8-3.2 ppm)
6,000 gal.	7,500 gal.	7 (3.7-3 ppm)
7,500 gal.	10,000 gal.	8 (3.4-2.5 ppm)

<sup>1</sup>Concentrations rounded to the nearest 10<sup>th</sup>

2. Place required number of envelopes in a mesh bag.
3. Place the mesh bag in the vehicle wash water storage tank.
4. Allow mesh bag to remain in tank for 24 hours. After 24 hours have passed, removed bag from tank.
5. Dispose of package(s) and spent envelope(s) according to instructions on package label.

### C. Deodorizing treatment of transportation, loading, and hauling equipment:

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Scrub hard, nonporous surfaces with soap or other detergent until visible filth is removed. Rinse hard, nonporous surfaces with potable water.
3. Deodorizing and General Cleaning Applications. For deodorizing and general cleaning applications, prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] directly in accordance with instructions above OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water).
4. Spray all hard, nonporous vehicle surfaces thoroughly. When applying the solution using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for use with chlorine dioxide. All surfaces must be visibly wet for at least ten (10) minutes. After treating, allow surfaces or equipment to air dry.
5. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse solution. Do not rinse treated surfaces.

## DEODORIZING TREATMENT OF VENTILATION SYSTEMS

**This product can be used for deodorizing applications during the cleaning of ventilation systems.**

Prior to inspecting, cleaning, treating or working on a ventilation system or its components, the system must be turned off or disconnected from any part of the system not isolated. Mechanically clean, vacuum, or blow free of dirt, dust, mold, and debris all duct work using a commercial duct cleaning system or service prior to treatment. The air ducts to be treated must be mechanically sound and free of air leaks.

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Prepare a 20 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] directly in accordance with instructions above OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:25 dilution device (one part 500 ppm solution to 24 parts water).
3. Spray solution on all hard, nonporous surfaces in vents or ducts. Allow surfaces to dry for at least thirty minutes (or longer if possible). For all spraying applications, wear a NIOSH/MSHA-approved respirator appropriate for use with chlorine dioxide.
4. After treating, allow surfaces or equipment to air dry. Do not reuse solution. Do not rinse treated surfaces.
5. Dispose of package(s) and spent envelope(s) according to instructions on package label.

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## USE IN GLOVE DIPS AND SHOE BATHS

**This product can be used to prepare glove dips and shoe/boot baths used for sanitary measures.**

### **A. Preparing glove dips:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Prepare a 5 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).
3. Dispose of package(s) and spent envelope(s) according to instructions on package label.
4. Store solution in open container. Remove visible filth from gloves. Dip gloves in solution. Change solution daily or when solution appears soiled.

### **B. Preparing shoe baths:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water).
3. Dispose of package(s) and spent envelope(s) according to instructions on package label.
4. Place solution on ground in open container. Remove visible filth from footwear. Dip footwear in solution. Change solution daily or when solution appears soiled.

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## DEODORIZING TREATMENT FOR CONTROL OF ODOR AND SLIME-FORMING BACTERIA IN ANIMAL CONFINEMENT FACILITIES

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## **This product can be used in the cleaning and deodorizing treatment of kennels, pounds, stables, pens, pet houses, and cages.**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Remove all litter and manure from premises and thoroughly clean all surfaces with a suitable soap or detergent and rinse with clean water.
3. Prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water).
4. Using activated solution, spray or wipe down all hard, non-porous surfaces. For all spraying applications, wear a NIOSH/MSHA-approved respirator appropriate for use with chlorine dioxide. All surfaces must be visibly wet for at least ten (10) minutes.
5. Allow surfaces to air dry. Do not reuse solution. Do not rinse disinfected surfaces.
6. Dispose of package(s) and spent envelope(s) according to instructions on package label.

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## **DEODORIZING APPLICATIONS IN HUMIDIFIERS**

### **This product can be used to treat humidifier system water tanks.**

Prior to treatment, completely clean and rinse all tanks, tunnels, conveyor chains, heat exchangers, heat exchange towers, lines, spray bars and nozzles using potable water.

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Empty humidifier water tank and remove filth with a cloth or sponge. Rinse tank with potable water.
3. Prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] directly in accordance with instructions above OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water). Fill basin with solution.
4. Dip parts in activated *Selectrocide*® 5G [1G, 12G, 750MG] solution. Do not rinse treated parts. Allow treated surfaces to air dry. Do not reuse solution. Do not rinse treated surfaces.
5. Using a dosing pump, cycle 50 ppm (50 mg/L) solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] through pipeline or bulk tank immediately before milking. Circulate solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] for 2-3 minutes. Ensure that the temperature of the activated *Selectrocide*® 5G [1G, 12G, 750MG] does not fall below 100°F.
6. Dispose of package(s) and spent envelope(s) according to instructions on package label.

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## **Potable Water Treatment**

### **For use with *Selectrocide*® 5G [1G, 12G]. Activate according to instructions on label:**

Chlorine Dioxide is used as an oxidant in drinking water treatment. The required dosages will vary with source water conditions and the degree of contamination present. For most municipal and public potable water systems, a chlorine dioxide residual of up to 0.8 ppm is sufficient to provide adequate treatment. Residual disinfectant and disinfection byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards.

## **Wastewater Treatment**

### **For use with *Selectrocide*® 5G [1G, 12G]. Activate according to instructions on label:**

Chlorine dioxide is effective as an oxidant in wastewater treatment. The required dosages will vary with water conditions and the degree of contamination present. For most municipal and other wastewater systems, a chlorine dioxide

residual concentration of up to 5 ppm is sufficient to provide adequate treatment. For sulfide odor control, between pH 5-9, a minimum of 5.2 ppm (wt) of chlorine dioxide should be applied to oxidize 1 ppm of sulfide (measured as sulfide ion). For phenol destruction, at pH less than 8, 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol; at pH greater than 10, 3.3-ppm chlorine dioxide will oxidize 1 ppm phenol.

## Bacterial Slime Control in Paper Mills

**For use with *Selectrocide*® 5G [1G, 12G]. Activate according to instructions on label:**

Chlorine Dioxide generated from sodium chlorite is effective for use in controlling microbiological growth in white paper mill systems. The required dosages will vary with the degree of microbiological and process contamination present. Depending on the specific requirements of the system, sodium chlorite should be applied continuously or intermittently through a chlorine dioxide generating system to achieve a chlorine dioxide residual concentration between 0.1 and 5.0 ppm. Intermittent treatments should be repeated as often as necessary to maintain control.

## PLANT AND CROP APPLICATIONS

### HORTICULTURAL ALGAECIDE, AND SLIME REMOVER/INHIBITER

**Treats/Controls/Inhibits: Algae (*Phormidium boneri*) and Bacteria ([*Penicillium digitatum*], [*Botrytis sp.*], [*Fusarium solani*], *Pythium aphanidermatum*, *Pythium irregulare*, *Fusarium oxysporum f. sp. basilicum* (Fob)).**

**NOTE: Do not use at concentrations higher than those recommended for each application.** When applied directly to plants, seeds, cuttings or flowers as directed, *Selectrocide*® 5G [1G, 12G, 750MG] does not cause adverse cosmetic effects, as testing has demonstrated. However, testing has not been performed on EVERY plant species, and users are advised to spot-test *Selectrocide*® 5G [1G, 12G, 750MG] before applying it widely.

**Active solution may be irritating if breathed. If applying solution inside greenhouse or enclosed area using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide: after treatment, ventilate greenhouse**

**OPTIONAL DILUTION INSTRUCTIONS FOR HORTICULTURAL SETTINGS:** The following dilution chart is consistent with the other dilution instructions contained in this technical bulletin. It is tailored to the typical dilution ratios of 1:5, 1:10 and 1:200 necessary for some horticultural applications. Use this chart, or dilution instructions presented elsewhere, most compatible with available dilution devices.

OPTIONAL DILUTION INSTRUCTIONS DESIGNED FOR DILUTION RATIOS REQUIRED TYPICALLY IN GREENHOUSES AND HORTICULTURAL SETTINGS			
To achieve a final chlorine dioxide concentration of :	Use a single Selective Micro Envelope of this size:	Activated in this many gallons or liters of water:	And apply using a device with an injection ratio of :
100 ppm	1G	2 liters	1:5

100 ppm	5G	12.5 gal	Undiluted
100 ppm	12G	30 gal	Undiluted
50 ppm	1G	2 liters	1:10
50 ppm	1G	20 liters	Undiluted
50 ppm	5G	25 gal	Undiluted
50 ppm	5G	2.5 gal	1:10
50 ppm	12G	6 gal	1:10
20 ppm	1G	50 liters	Undiluted
20 ppm	5G	62.5 gal <sup>1</sup>	Undiluted
20 ppm	12G	15 gal	1:10
10 ppm	1G	100 liters	Undiluted
10 ppm	5G	125 gal	Undiluted
10 ppm	12G	30 gal	1:10
5 ppm	1G	200 liters	Undiluted
5 ppm	5G	250 gal	Undiluted
5 ppm	12G	60 gal <sup>2</sup>	1:10
3 ppm	1G	33.3 liters	1:10
3 ppm	5G	41.6 gal	Undiluted
3 ppm	12G	100 gal	1:10
0.8 ppm	1G	125 liters	1:10
0.8 ppm	5G	156.25 gal	1:10
0.8 ppm	12G	375 gal	1:10]
0.25 ppm	12G	60 gal <sup>3</sup>	1:200

Note: Verify concentration using Selective Micro<sup>®</sup> Test Strips. For concentrations above 10 ppm, use Selective Micro<sup>®</sup> Wide Range test strips; for concentrations of 10 ppm or less, use Selective Micro<sup>®</sup> Low Range test strips.

<sup>1</sup> Exceeds capacity of 55-gallon drum; activating the 5G in a 55-gallon drum will yield an application solution at a concentration of about 24.0 ppm—effective, but higher than necessary.

<sup>2</sup> Exceeds capacity of 55-gallon drum; activating the 12G in a 55-gallon drum and diluting with a 1:10 injection device will yield an application solution at a concentration of about 5.76 ppm—effective, but higher than necessary.

<sup>3</sup> Exceeds capacity of 55-gallon drum; activating the 12G in a 55-gallon drum and diluting with a 1:200 injection device will yield an application solution at a concentration of about 0.27 ppm—effective, but higher than necessary.

**As a dip to control and suppress bacteria [(*Erwinia chrysanthemi*)], algae (such as *Phormidium boneri*) and bacteria [(such as *Penicillium digitatum*, *Botrytis* sp., *Fusarium solani*)] on rooted or unrooted cuttings and cut flowers:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to “Directions for Use” on package label.
2. Prepare a 5 ppm solution of *Selectrocide*® 5G [1G, 750MG, 12G] OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:100 dilution device or add one part 500 ppm solution to 99 parts water.
3. Briefly dip cuttings or cut flowers in 5 ppm solution, ensuring they remain visibly wet with solution for at least one minute.
4. Dispose of package and spent envelope according to instructions on package label.

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**To control and suppress bacteria [(*Erwinia chrysanthemi*)], including algae (*Phormidium boneri*) and bacteria [(*Penicillium digitatum*, *Botrytis* sp., *Fusarium solani*,] *Pythium aphanidermatum*, *Pythium irregulare*, *Fusarium oxysporum* f. sp. *Basilicum* (Fob)) in seed-bed soil and planting cubes:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to “Directions for Use” on the package label.
2. Prepare a 5 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:100 dilution device or add one part 500 ppm solution to 99 parts water.
3. Immerse or drench seed-bed soil or planting cubes and allow to remain visibly wet with solution for ten (10) minutes.
4. Dispose of package and spent envelope according to instructions on package label.

Soil or planting cubes can be seeded or planted immediately after treatment.

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**[FOR CONTINUOUS TREATMENT TO SUPPRESS BACTERIA AND INHIBIT ALGAE, BIOSLIME, SLIME, AND BACTERIA AT A CONCENTRATION OF 3.0 PPM]**

1. [Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on product label.
2. Using a dosing pump, add activated *Selectrocide*® 5G [1G, 12G, 750MG] to watering system until water reaches a concentration of 3.0 ppm (required concentration levels vary according to site-specific conditions—monitor the microbial content of the water and increase or decrease the addition rate of the activated solution as needed); [higher chlorine dioxide injection rates, such as 3.0ppm can ensure chlorine dioxide residual of up to 0.8 ppm is sufficient to provide adequate treatment]. Residual disinfectant and disinfection byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards.
3. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse.

NOTE: Use ultra-low-range *Selective Micro*® *Chlorine Dioxide Test Strips* to verify concentration at downstream production points. Organic loads vary across water supplies, and will influence injection level necessary to ensure 3.0 ppm concentrations at emitter hoses, mist nozzles, and drip tubes.]

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**FOR CONTINUOUS TREATMENT TO SUPPRESS BACTERIA AND INHIBIT ALGAE, BIOSLIME SLIME, AND BACTERIA AT A CONCENTRATION OF 0.8 PPM**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on product label.
  2. Using a dosing pump, add activated *Selectrocide*® 5G [1G, 12G, 750MG] to watering system until water reaches a concentration of 0.8 ppm (required concentration levels vary according to site-specific conditions—monitor the microbial content of the water and increase or decrease the addition rate of the activated solution as needed); residual disinfectant and disinfection byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards.
  3. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse.
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NOTE: Use ultra-low-range *Selective Micro*<sup>®</sup> *Chlorine Dioxide Test Strips* to verify concentration at downstream production points. Organic loads vary across water supplies, and will influence injection level necessary to ensure 0.8 ppm concentrations at emitter hoses, mist nozzles, and drip tubes.

**For removing slime and retarding its reemergence; for deodorizing or treatment applications involving algae (*Phormidium boneri*) and bacteria [(*Penicillium digitatum*, *Botrytis* sp., *Fusarium solani*,] *Pythium aphanidermatum*, *Pythium irregulare*, *Fusarium oxysporum* f. sp. *Basilicum* (Fob)); and for continuous treatment to inhibit their re-establishment in irrigation systems, flood floors, flooded benches, misting systems, humidification systems, recycled water systems and capillary mats:**

1. Activate *Selectrocide*<sup>®</sup> 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Use power sprayer to wash all surfaces to remove loose filth. Scrub surfaces using a suitable soap or detergent to ensure that no filth remains on surfaces.
3. Prepare solutions in concentrations indicated below and ensure surfaces are wetted and remain visibly wet for the times or are applied continuously as noted below.
4. Dispose of package(s) and spent envelope(s) according to instructions on package label.

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**AS AN INITIAL OR REMEDIAL TREATMENT TO DISINFECT WATER HOLDING TANKS AND IRRIGATION/TRANSFER LINES (CLEAN-IN-PLACE APPLICATION)**

5. Flush tank thoroughly with clean water. Activate *Selectrocide*<sup>®</sup> 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
6. Prepare a 100 ppm solution of activated *Selectrocide*<sup>®</sup> 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:5 dilution device (one part 500 ppm solution to four parts water).
7. Fill tank completely. Run 100 ppm solution through irrigation/transfer lines and appliances until green solution appears at the outlets. Top-off tank with solution. Circulate or let stand in tank and lines for at least ten (10) minutes.
8. Drain tanks and lines, flush with clean water, and resume normal operation.

**FOR CONTINUOUS TREATMENT TO INHIBIT THE RE-ESTABLISHMENT OF SLIME, ALGAE, AND BACTERIA**

5. Prepare a 0.25 ppm solution of activated *Selectrocide*<sup>®</sup> 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:2,000 dilution device or add one part 500 ppm solution to 1,999 parts water.
6. Use the prepared 0.25 ppm solution to operate the water system following normal application procedures.

NOTE: Use ultra-low-range *Selective Micro*<sup>®</sup> *Chlorine Dioxide Test Strips* to verify concentration at downstream production points. Organic loads vary across water supplies, and will influence injection level necessary to ensure 0.25 ppm concentrations at emitter hoses, mist nozzles, and drip tubes.

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**[FOR CONTINUOUS TREATMENT TO INHIBIT THE RE-ESTABLISHMENT OF SLIME, ALGAE, AND BACTERIA AT A CONCENTRATION OF 3.0 PPM]**

1. [Activate *Selectrocide*<sup>®</sup> 5G [1G, 12G, 750MG] according to "Directions for Use" on product label.
  2. Using a dosing pump, add activated *Selectrocide*<sup>®</sup> 5G [1G, 12G, 750MG] to water system until water reaches a concentration of 3.0 ppm (required concentration levels vary according to site-specific conditions—monitor the microbial content of the water and increase or decrease the addition rate of the activated solution as needed); [higher chlorine dioxide injection rates, such as 3.0 ppm can ensure chlorine dioxide residual of up to 0.8 ppm is sufficient to provide adequate disinfection]. Residual
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disinfectant and disinfection byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards.

3. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse.

NOTE: Use ultra-low-range *Selective Micro*® *Chlorine Dioxide Test Strips* to verify concentration at downstream production points. Organic loads vary across water supplies, and will influence injection level necessary to ensure 3.0 ppm concentrations at emitter hoses, mist nozzles, and drip tubes.]

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#### **FOR CONTINUOUS TREATMENT TO INHIBIT THE RE-ESTABLISHMENT OF SLIME, ALGAE, and BACTERIA AT A CONCENTRATION OF 0.8 PPM**

1. Activate *Selectroicide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on product label.
2. Using a dosing pump, add activated *Selectroicide*® 5G [1G, 750MG, 12G] to water system water reaches a concentration of 0.8 ppm (required concentration levels vary according to site-specific conditions—monitor the microbial content of the water and increase or decrease the addition rate of the activated solution as needed); residual disinfectant and disinfection byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards.
3. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse.

NOTE: Use ultra-low-range *Selective Micro*® *Chlorine Dioxide Test Strips* to verify concentration at downstream production points. Organic loads vary across water supplies, and will influence injection level necessary to ensure 0.8 ppm concentrations at emitter hoses, mist nozzles, and drip tubes.

#### **As an algaecide and bactericide for treating, preventing, suppressing and controlling horticultural diseases on hard, non-porous surfaces in commercial greenhouses, garden centers and nurseries:**

1. Activate *Selectroicide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Pre-clean all non-plant surfaces prior to application of solution. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
3. Prepare solutions in indicated concentrations and ensure all surfaces are wetted and remain visibly wet for the times noted below.
4. Dispose of package and spent envelope according to instructions on package label.

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#### **AS AN INITIAL OR REMEDIAL TREATMENT TO KILL ALGAE AND BACTERIA ON HARD NON-POROUS SURFACES ON EQUIPMENT, GREENHOUSE STRUCTURES, GLAZING, PLASTIC, BENCHES, WALKWAYS, FLOORS, WALLS, FAN BLADES, VENTILATION DUCTS, WATERING SYSTEMS, COOLERS AND STORAGE ROOMS**

5. Prepare a 5 ppm solution of activated *Selectroicide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).
6. Apply the 5 ppm solution with mop, sponge or sprayer. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
7. Visibly wet all surfaces and ensure the surfaces remain visibly wet for at least one hour.

Note: Heavy growths of algae or bacteria may require scrubbing to remove dead growth.

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#### **AS A WEEKLY PREVENTATIVE TREATMENT TO KILL, CONTROL AND SUPPRESS BACTERIA AND CONTROL AND SUPPRESS ALGAE ON HARD NON-POROUS SURFACES ON EQUIPMENT, GREENHOUSE STRUCTURES, GLAZING, PLASTIC, BENCHES, WALKWAYS, FLOORS, WALLS, FAN BLADES, VENTILATION DUCTS, WATERING SYSTEMS, COOLERS AND STORAGE ROOMS**

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5. Prepare a 5 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] in accordance with instructions above OR prepare a 500 ppm solution [1G, 5G, 12G] and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).
6. Apply 5 ppm solution with mop, sponge or sprayer. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide. Visibly wet all surfaces and ensure the surfaces remain visibly wet for at least one hour (kill/cidal) and at least one minute (suppression).

### **As a dip to control and suppress bacteria [(*Erwinia chrysanthemi*)] on cuttings and cut flowers:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to “Directions for Use” on package label.
2. Prepare a 5 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).
3. Briefly dip cuttings or cut flowers in 5 ppm solution and ensure they remain visibly wet with solution for at least one minute.
4. Dispose of package and spent envelope according to instructions on package label.

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### **To maintain freshness and extend shelf-life for cut flowers:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to “Directions for Use” on package label.
2. Prepare a 5 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] in accordance with instructions above OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).
3. Unbundle the flowers to preclude bunching, and place in vase on display or in cold storage in the 5 ppm solution of chlorine dioxide. Solution may include 2% sucrose.
4. Refresh solution every 24 hours.
5. Dispose of package and spent envelope according to instructions on package label.

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### **As a drench or spray to control and suppress bacteria, and algae in commercial mushroom growing operations (pre- and post-casing):**

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#### **PRE-CASING:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to “Directions for Use” on the package label.
2. Prepare a 0.8 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 5G, 750MG, 12G] and add 0.20 ounces per gallon.
2. Drench or spray mushroom beds until all mushrooms are visibly wet with solution. When applying these solutions using a sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
4. Begin casing mushroom beds.
5. Dispose of package(s) and spent envelope(s) according to instructions on package label.

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#### **POST-CASING:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to “Directions for Use” on the package label.
  2. Prepare a 0.8 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 5G, 750MG, 12G] and add 0.2 ounces per gallon.
  3. Drench or spray mushroom beds until all mushrooms are visibly wet with solution. When applying these solutions using a sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
  4. Dispose of package(s) and spent envelope(s) according to instructions on package label.  
Residual disinfectant and disinfection byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards.
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## APPLICATION IN HYDROPONIC SETTINGS

**Treats/Controls/Inhibits:** Algae (*Phormidium boneri*) and Bacteria ([*Penicillium digitatum*], [*Botrytis sp.*], [*Fusarium solani*], *Pythium aphanidermatum*, *Pythium irregulare*, *Fusarium oxysporum f. sp. basilicum* (Fob)).

**NOTE:** Do not use at concentrations higher than those recommended for each application.

Active solution may be irritating if breathed. If applying in enclosed area or greenhouse using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide: after treatment, ventilate sprayed area.

**OPTIONAL DILUTION INSTRUCTIONS IN HYDROPONIC SETTINGS:** The following dilution chart is consistent with the other dilution instructions contained in this technical bulletin. It is tailored to the typical dilution ratios of 1:5, 1:10 and 1:200 necessary for hydroponic applications. Use this chart, or dilution instructions presented elsewhere, most compatible with available dilution devices.

OPTIONAL DILUTION INSTRUCTIONS DESIGNED FOR DILUTION RATIOS REQUIRED TYPICALLY IN HYDROPONIC SETTINGS			
To achieve a final chlorine dioxide concentration of :	Use a single Selective Micro Envelope of this size:	Activated in this many gallons or liters of water:	And apply using a device with an injection ratio of :
100 ppm	1G	2 liters	1:5
100 ppm	5G	12.5 gal	Undiluted
100 ppm	12G	30 gal	Undiluted
50 ppm	1G	2 liters	1:10
50 ppm	1G	20 liters	Undiluted
50 ppm	5G	25 gal	Undiluted
50 ppm	5G	2.5 gal	1:10
50 ppm	12G	6 gal	1:10
20 ppm	1G	50 liters	Undiluted
20 ppm	5G	62.5 gal <sup>1</sup>	Undiluted
20 ppm	12G	15 gal	1:10
10 ppm	1G	100 liters	Undiluted
10 ppm	5G	125 gal	Undiluted
10 ppm	12G	30 gal	1:10]
5 ppm	1G	200 liters	Undiluted
5 ppm	5G	250 gal	Undiluted

5 ppm	12G	60 gal <sup>2</sup>	1:10
3 ppm	1G	33.3 liters	1:10
3 ppm	5G	41.6 gal	Undiluted
3 ppm	12G	100 gal	1:10
0.8 ppm	1G	125 liters	1:10
0.8 ppm	5G	156.25 gal	1:10
0.8 ppm	12G	375 gal	1:10
0.25 ppm	1G	20 liters	1:200
0.25 ppm	5G	25 gal	1:200
0.25 ppm	12G	60 gal <sup>3</sup>	1:200

Note: Verify concentration using Selective Micro® Test Strips. For concentrations above 10 ppm, use Selective Micro® Wide Range test strips; for concentrations of 10 ppm or less, use Selective Micro® Low Range test strips.

<sup>1</sup> Exceeds capacity of 55-gallon drum; activating the 5G in a 55-gallon drum will yield an application solution at a concentration of about 24.0 ppm—effective, but higher than necessary.

<sup>2</sup> Exceeds capacity of 55-gallon drum; activating the 12G in a 55-gallon drum and diluting with a 1:10 injection device will yield an application solution at a concentration of about 5.76 ppm—effective, but higher than necessary.

<sup>3</sup> Exceeds capacity of 55-gallon drum; activating the 12G in a 55-gallon drum and diluting with a 1:200 injection device will yield an application solution at a concentration of about 0.27 ppm—effective, but higher than necessary.

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**To control and suppress bacteria [(*Erwinia chrysanthemi*)], including algae (*Phormidium boneri*); bacteria [(*Penicillium digitatum*, *Botrytis* sp., *Fusarium solani*,] *Pythium aphanidermatum*, *Pythium irregulare*, *Fusarium oxysporum* f. sp. *Basilicum* (*Fob*)) on ornamentals, edibles in hydroponic gardens:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to “Directions for Use” on the package label.
2. Prepare a 10.0 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:50 dilution device or add one part 500 ppm solution to 49 parts water.
3. Immerse or ornamentals, edibles. Ensure crops are visibly wet with solution for ten (10) minutes.
4. Dispose of package and spent envelope according to instructions on package label.

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**AS A DIP, SPRAY, OR DRENCH AT A CONCENTRATION OF 5.0 PPM**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to “Directions for Use” on the package label.
  2. Prepare a 5 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:100 dilution device or add one part 500 ppm solution to 99 parts water.
  3. Immerse or ornamentals, edibles. Ensure crops are visibly wet with solution for ten (10) minutes.
  4. Dispose of package(s) and spent envelope(s) according to instructions on package label.
-

**[FOR CONTINUOUS TREATMENT TO SUPPRESS BACTERIA AND INHIBIT ALGAE, BIOSLIME, SLIME, AND BACTERIA AT A CONCENTRATION OF 3.0 PPM]**

1. [Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on product label.
2. Using a dosing pump, add activated *Selectrocide*® 5G [1G, 12G, 750MG] to watering system until water reaches a concentration of 3.0 ppm (required concentration levels vary according to site-specific conditions—monitor the microbial content of the water and increase or decrease the addition rate of the activated solution as needed); [higher chlorine dioxide injection rates, such as 3.0ppm can ensure chlorine dioxide residual of up to 0.8 ppm is sufficient to provide adequate treatment]. Residual disinfectant and disinfection byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards.
3. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse.

NOTE: Use ultra-low-range *Selective Micro*® Chlorine Dioxide Test Strips to verify concentration at downstream production points. Organic loads vary across water supplies, and will influence injection level necessary to ensure 3.0 ppm concentrations at emitter hoses, mist nozzles, and drip tubes.]

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**FOR CONTINUOUS TREATMENT TO SUPPRESS BACTERIA AND INHIBIT ALGAE, BIOSLIME, SLIME, AND BACTERIA AT A CONCENTRATION OF 0.8 PPM**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on product label.
2. Using a dosing pump, add activated *Selectrocide*® 5G [1G, 12G, 750MG] to watering system until water reaches a concentration of 0.8 ppm (required concentration levels vary according to site-specific conditions—monitor the microbial content of the water and increase or decrease the addition rate of the activated solution as needed); residual disinfectant and disinfection byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards.
3. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse.

NOTE: Use ultra-low-range *Selective Micro*® Chlorine Dioxide Test Strips to verify concentration at downstream production points. Organic loads vary across water supplies, and will influence injection level necessary to ensure 0.8 ppm concentrations at emitter hoses, mist nozzles, and drip tubes.

**For removing slime and retarding its reemergence; for deodorizing or applications involving algae (*Phormidium boneri*) and bacteria [*Penicillium digitatum*, *Botrytis sp.*, *Fusarium solani*,] *Pythium aphanidermatum*, *Pythium irregulare*, *Fusarium oxysporum f. sp. Basilicum (Fob)*]; and for continuous treatment to inhibit their re-establishment in irrigation systems, flood floors, flooded benches, misting systems, humidification systems, recycled water systems and capillary mats:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
2. Pre-clean all surfaces prior to application of deodorizing solution. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose filth. Scrub surfaces using a suitable soap or detergent to ensure that no filth remains on surfaces.
3. Prepare solutions in concentrations indicated below and ensure surfaces are wetted and remain visibly wet for the times or are applied continuously as noted below.
4. Dispose of package(s) and spent envelope(s) according to instructions on package label.

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**AS AN INITIAL OR REMEDIAL TREATMENT TO DISINFECT WATER HOLDING TANKS AND IRRIGATION/TRANSFER LINES (CLEAN-IN-PLACE APPLICATION)**

1. Flush tank thoroughly with clean water. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.

2. Prepare a 100 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] and use a 1:5 dilution device (one part 500 ppm solution to four parts water).
3. Fill tank completely. Run 50 ppm solution through irrigation/transfer lines and appliances until green solution appears at the outlets. Top-off tank with solution. Circulate or let stand in tank and lines for at least ten (10) minutes.
4. Drain tanks and lines, flush with clean water, and resume normal operation.

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**[FOR CONTINUOUS TREATMENT TO INHIBIT THE RE-ESTABLISHMENT OF SLIME, ALGAE, AND BACTERIA AT A CONCENTRATION OF 3.0 PPM]**

1. [Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on product label.
2. Using a dosing pump, add activated *Selectrocide*® 5G [1G, 12G, 750MG,] to water system until water reaches a concentration of 3.0 ppm (required concentration levels vary according to site-specific conditions—monitor the microbial content of the water and increase or decrease the addition rate of the activated solution as needed); higher chlorine dioxide injection rates, such as 3.0ppm can ensure chlorine dioxide residual of up to 0.8 ppm is sufficient to provide adequate treatment. Residual disinfectant and disinfection byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards.
3. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse.

NOTE: Use ultra-low-range *Selective Micro*® Chlorine Dioxide Test Strips to verify concentration at downstream production points. Organic loads vary across water supplies, and will influence injection level necessary to ensure 3.0 ppm concentrations at emitter hoses, mist nozzles, and drip tubes.]

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**FOR CONTINUOUS TREATMENT TO INHIBIT THE RE-ESTABLISHMENT OF SLIME, ALGAE, and BACTERIA AT A CONCENTRATION OF 0.8 PPM**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on product label.
2. Using a dosing pump, add activated *Selectrocide*® 5G [1G, 12G, 750MG] to watering system until water reaches a concentration of 0.8 ppm (required concentration levels vary according to site-specific conditions—monitor the microbial content of the water and increase or decrease the addition rate of the activated solution as needed); residual disinfectant and disinfection byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards.
3. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse.

NOTE: Use ultra-low-range *Selective Micro*® Chlorine Dioxide Test Strips to verify concentration at downstream production points. Organic loads vary across water supplies, and will influence injection level necessary to ensure 0.8 ppm concentrations at emitter hoses, mist nozzles, and drip tubes.

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**To maintain freshness and extend shelf-life for cut ornamentals, edibles, and crops:**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
  2. Prepare a 5 ppm solution of *Selectrocide*® 5G [1G, 12G, 750MG] in accordance with instructions above OR prepare a 500 ppm solution of *Selectrocide*® 5G [1G, 5G, 750MG, 12G] and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).
  3. Unbundle the crops to preclude bunching, and submerge crops in the 5 ppm solution or place the crops in cold storage in the 5 ppm solution of chlorine dioxide. Solution may include 2% sucrose.
  4. Refresh solution every 24 hours.
  5. Dispose of package and spent envelope according to instructions on package label.
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## TO EXTEND SHELF-LIFE AND FRESHNESS OF FRUITS AND VEGETABLES IN FOOD PROCESSING FACILITIES

**This product will reduce concentrations of spoilage microbes on raw agricultural commodities (RACs) intended for commercial food processing.**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to “Directions for Use” on the package label.
2. Wash and **thoroughly** rinse fruits and vegetables with clean, potable water.
3. Prepare a 5 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution [1G, 5G, 750MG, 12G] and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).
4. Apply the 5 ppm solution to fruits and vegetables by: either immersing/dipping in a tank of 5 ppm solution for 1 minute OR using an application-specific sprayer (the industry standard fan or cone spray nozzle pattern) to cover all surfaces evenly with a 5 ppm spray; surfaces should remain visibly wet for 1 minute. Replenish immersion solution at the rate of depletion; verify 5 ppm concentration using *Selective Micro*® Chlorine Dioxide Test Strips. Empty and wash immersion tanks with every shift change.
5. Follow application to fruits and vegetables with a potable water rinse or canning, blanching, or cooking.
6. Dispose of package and spent envelope according to instructions on package label.

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## PLANT AND CROP APPLICATIONS TO CONTROL SPOILAGE MICROBES IN AGRICULTURAL WATER

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### **[FOR CONTINUOUS TREATMENT TO INHIBIT THE RE-ESTABLISHMENT OF SLIME, ALGAE, AND BACTERIA AT A CONCENTRATION OF 3.0 PPM]**

1. [Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on product label.
2. Using a dosing pump, add activated *Selectrocide*® 5G [1G, 12G, 750MG] to watering system until water reaches a concentration of 3.0 ppm (required concentration levels vary according to site-specific conditions—monitor the microbial content of the water and increase or decrease the addition rate of the activated solution as needed); [higher chlorine dioxide injection rates, such as 3.0 ppm can ensure chlorine dioxide residual of up to 0.8 ppm is sufficient to provide adequate treatment]. Residual disinfectant and disinfection byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards.
3. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse.

NOTE: Use ultra-low-range *Selective Micro*® Chlorine Dioxide Test Strips to verify concentration at downstream production points. Organic loads vary across water supplies, and will influence injection level necessary to ensure 3.0 ppm concentrations at emitter hoses, mist nozzles, drip tubes, and other point-of-application.]

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### **FOR CONTINUOUS TREATMENT TO INHIBIT THE RE-ESTABLISHMENT OF SLIME, ALGAE, AND BACTERIA AT A CONCENTRATION OF 0.8 PPM**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on product label.
  2. Using a dosing pump, add activated *Selectrocide*® 5G [1G, 12G, 750MG] to watering system until water reaches a concentration of 0.8 ppm (required concentration levels vary according to site-specific conditions—monitor the microbial content of the water and increase or decrease the addition rate of the activated solution as needed); residual disinfectant and disinfection byproducts must be monitored as
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required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards.

3. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse.

NOTE: Use ultra-low-range *Selective Micro® Chlorine Dioxide Test Strips* to verify concentration at downstream production points. Organic loads vary across water supplies, and will influence injection level necessary to ensure 0.8 ppm concentrations at emitter hoses, mist nozzles, drip tubes, and other point-of-application devices.

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## PLANT AND CROP APPLICATIONS TO CONTROL THE BUILDUP OF SPOILAGE MICROBES IN PROCESS WATERS FOR FRUITS AND VEGETABLES AND ASSOCIATED TANKS, FLUMES, AND LINES

**This product will inhibit spoilage microbial growth in water used to process fruits and vegetables.**

- NOTE: 1. Replacement and replenishment intervals will vary with microbial challenge presented by fruits and vegetables treated. *Selective Micro Technologies* recommends a beginning concentration of 5 ppm, with adjustments to ensure a residual concentration between 0.25 and 5 ppm depending on microbial challenge and operation-unique factors.
2. Apply chlorine dioxide solution continuously or intermittently to achieve a residual concentration level between 0.25 – 5.0 ppm.
  3. Regularly confirm concentration of process water using *Selective Micro® Chlorine Dioxide Test Strips* or other measurement means (e.g., Oxidation Reduction Potential (ORP) metering)
1. At regular intervals or before beginning a shift, clean tanks, flumes, and lines using normal procedures, and follow with potable water rinse. In conditions of severe microbial accumulation (or when slime is visible), it is advisable to treat the thoroughly cleaned system with a treatment before returning the system to normal operation. See *Selectocide®*'s "Sanitization and General Cleaning Applications for Water Lines and Tanks in Potable Water Systems" for recommendations on cleaning tanks that are contaminated severely.
  2. Determine the number of *Selectocide®* envelopes necessary based on the capacity of the tank or system, anticipated replenishment/replacement cycle based on expected microbial loads, and specific application method—once-through or recycled. The optimal concentration necessary to ensure a residual concentration of between 0.25 and 5.0 ppm will vary across operations.

Generate stock 500 ppm external to the tank and meter the stock solution in adequate volume to raise the volumes of process water to the desired concentration via mechanical injection (recommended) or by batch-loading.

For "recycle" process designs, generate stock 500 ppm solution external to the tank and inject activated solution in sufficient volume to raise the process water to the desired concentration via mechanical injection (recommended) or by batch-loading.

Consult pages 1-2 of this Technical Bulletin for dilution instructions, or scale to application using the table below, which presents, as a starting point, the total volume of stock 5 ppm solution generated using a single package of each product in the G-series product line. For example, with a 1,000-gallon system capacity, two 12Gs would fill the system at 5 ppm — and leave an additional 270 gallons at 5 ppm in reserve.

### VOLUME OF 5 PPM SOLUTION USING SINGLE SELECTROCIDE® G-SERIES PRODUCT

Selectrocide® G-Series Product	Volume of Water Specified To Generate 500 ppm Stock Solution	Volume of 5 ppm Solution Created Using a Single Selectrocide® Envelope	
		Liters	Gallons <sup>1</sup>
1G	2	200	50
5G	10	1,000	265
12G	24	2,400	635

<sup>1</sup> Rounded to nearest 5 gallons

Note: Verify concentration using Selective Micro® Test Strips. For concentrations above 10 ppm, use Selective Micro® Wide Range test strips; for concentrations of 10 ppm or less, use Selective Micro® Low Range test strips.

3. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
4. Prepare a 5 ppm solution of activated *Selectrocide*® 5G [1G, 12G, 750MG] OR prepare a 500 ppm solution with any of the G-series products and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water) to achieve target concentration of 5 ppm.
5. Verify concentration of process solution using *Selective Micro*® Chlorine Dioxide Test Strips or other means. Adjust concentration by adding additional water if the concentration is above 5 ppm or by adding additional concentrate if below 5 ppm (or below desired concentration between 0.25 and 5.0 ppm).
6. Cover or enclose containers holding solution, and operate normally.
7. Check concentration at regular intervals using test strips or other means to ensure target concentration is maintained. Replenish solution as necessary to maintain target concentration.
8. At desired intervals, drain system, clean as necessary, and refill with freshly-activated solution.
9. Dispose of package and spent envelope according to instructions on package label.

Note: Clean and remove accumulations of organic matter in delivery lines on a regular basis. (See, for example, label and technical bulletin instructions for this product under the heading "Sanitization and General Cleaning Applications for Potable Water Systems")

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## PLANT AND CROP APPLICATION OF FLUME WATERS FOR CONTROL OF SLIME

**This product can be used to treat slime [and other bioslimes] in flume waters.**

1. Activate *Selectrocide*® 5G [1G, 12G, 750MG] according to "Directions for Use" on package label.
  2. Add activated *Selectrocide*® 5G [1G, 12G, 750MG] to flume via a dosing pump at a concentration of 50 ppm (50 mg/liter) and let stand overnight or circulate for 10-15 hours.
  3. To prevent slime growth after initial treatment, add *Selectrocide*® 5G [1G, 12G, 750MG] using a dosing pump to the water at a dose of 5.0 ppm (5.0 mg/liter) chlorine dioxide. Minimum contact time for control of listed pathogenic organisms is 5 minutes.
  4. Drain and rinse flume with clean, potable water before putting system back into use.
  5. Dispose of package(s) and spent envelope(s) according to instructions on package label. Do not reuse.
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# FOR USE IN POTATO STORAGE FACILITIES AS AN ATMOSPHERIC ClO<sub>2</sub> TREATMENT FOR POTATOES

**This product releases chlorine dioxide gas (ClO<sub>2</sub>) to inhibit or remove odors caused by spoilage growths such as late blight, brown rot, and others on potatoes during their storage and shipment.**

## *Directions for Set-Up:*

Treatment MUST take place in a suitable space. Two such treatment sites are storage rooms and shipping containers. Personnel MUST vacate the treatment space during the atmospheric chlorine dioxide treatment process until chlorine dioxide levels are at or below the OSHA 0.1 ppm TWA level. For the treatment of large areas/surface areas, the generation of additional Selective Micro Technologies' *Selectrocide*® 12G may be required.

## *Directions for activation:*

For potato and general atmospheric chlorine dioxide treatment, place a single *Selectrocide*® 12G sachet in one gallon of water. For each application, do not generate more than two sachets AND two gallons of water in a single activation vessel; one *Selectrocide*® 12G sachet should be used per one gallon of water.

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## **FOR TREATMENT OF POTATOES IN AN AREA WITH A STATIC VESSEL OF ACTIVATED SELECTROCIDE® 12G**

## *Directions for Application:*

1. For best results, wash potatoes thoroughly before use, removing any visible traces of dirt or mold.
2. Activate *Selectrocide*® 12G according to directions above.
3. Prepare a *Selectrocide*® solution according to the directions in the table below based upon volume of area treated.

The amount of *Selectrocide*® required for a given stock of potatoes can be calculated as follows:

Volume of potato storage	Gallons of concentrate solution required
0-3,000 ft. <sup>3</sup>	2
3,001-6,000 ft. <sup>3</sup>	3
6,001-12,000 ft. <sup>3</sup>	4
12,001-24,000 ft. <sup>3</sup>	5
24,001-36,000 ft. <sup>3</sup>	6

4. Immediately place the vessel(s) in the storage area, preferably on top of the potatoes to be treated. If there is one vessel treating the storage area, place it as close to the potatoes as possible. If preparing multiple vessels to treat the storage area, place them at equidistant points around the area.
  5. Allow gas to freely migrate across the potatoes' surface. Personnel MUST vacate the treatment space during the treatment process using atmospheric chlorine dioxide treatment process until chlorine dioxide levels are at or below the OSHA 0.1 ppm TWA level OR wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide. In-air chlorine dioxide levels can be measured with a Model C16 PortaSens II chlorine dioxide gas leak detector or an equivalent measuring instrument.
  6. When chlorine dioxide levels are at or below the OSHA 0.1 ppm TWA level OR after 6 hours, remove the vessel(s) containing generated solution from area and dispose of solution according to instructions on package label or in accordance with federal, state and local law. Rinse vessel thoroughly using potable water.
  7. Dispose of package(s) and spent envelope(s) according to instructions on package label.
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## FOR TREATMENT OF POTATOES IN AN AREA WITH A SELECTIVE MICRO AUTOMATED DISPERSION UNIT

**For use only by professional personnel or trained personnel or persons hired and trained under contract to Selective Micro Technologies.**

### *Directions for Application:*

1. For best results, wash potatoes thoroughly before use, removing any visible traces of dirt or mold.
2. Activate *Selectrocide*® 12G according to directions above AND directly inside *Selective Micro Automated Dispersion Unit*.
3. Place the *Selective Micro Automated Dispersion Unit* in the storage area. Unit should be as close to potatoes to be treated as possible. Prepare a *Selectrocide*® solution according to the directions in the table below. Add to or dilute the concentration of the *Selectrocide*® solution until the required concentration is achieved in the *Selective Micro Automated Dispersion Unit*'s solution tank. For each application, one *Selectrocide*® 12G sachet should be used per one gallon of water.

The amount of *Selectrocide*® required for a given stock of potatoes can be calculated as follows:

Volume of potato storage	Gallons of concentrate solution required
0-3,000 ft. <sup>3</sup>	1
3,001-6,000 ft. <sup>3</sup>	2
6,001-12,000 ft. <sup>3</sup>	3
12,001-24,000 ft. <sup>3</sup>	4
24,001-36,000 ft. <sup>3</sup>	5

4. Fit top on the *Selective Micro Automated Dispersion Unit* and power on the unit.
5. Allow gas to freely migrate across the potatoes' surface. Personnel MUST vacate the treatment space during the atmospheric chlorine dioxide process until chlorine dioxide levels are at or below the OSHA 0.1 ppm TWA level OR wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide. In-air chlorine dioxide levels can be measured with a Model C16 PortaSens II chlorine dioxide gas leak detector or an equivalent measuring instrument.
6. When chlorine dioxide levels are at or below the OSHA 0.1 ppm TWA level OR after 6 hours, turn off the *Selective Micro Automated Dispersion Unit*. Remove unit from area and dispose of solution according to instructions on package label or in accordance with federal, state and local law. Rinse *Selective Micro Automated Dispersion Unit* solution tank thoroughly using potable water.
7. Dispose of package(s) and spent envelope(s) according to instructions on package label.

### Additional Professional Use Sites (May Be Listed On Product Label):

Ambulance

Health Club

Public eating places

Warehouse

Club

(Institutional)

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Hotel/Motel  
Public Facility  
Blood Bank  
Kennel  
Public Places  
Wrestling Match  
Cafeteria (Kitchen)  
Laundromat  
Recreational Center  
Clinic  
Restaurant  
College Locker  
Commercial Building  
Military Installation  
Day Care Center  
Nursing Home  
School (Bus) (Vehicle)  
Dental Office  
Office Building  
Shelter  
Patient Room  
Pharmacy  
Veterinary (Office) (Clinic)  
Health Care Facility  
Physician's Office  
Waiting Room  
Additional Hard, non-porous surfaces: may be listed on product label an  
Bathroom Surfaces Examination Tables  
Parquet Sinks  
Patient Chairs  
Bed Frame

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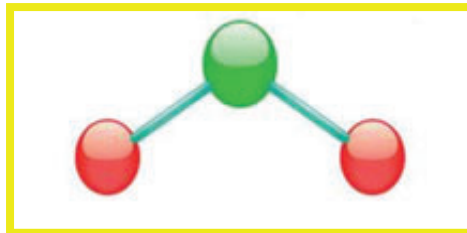
Fixtures  
Plastic (mattress covers)  
Stretchers  
Bidet Furniture  
Portable Toilets  
Table Tops  
Brass  
Recycling Bins  
Telephones  
Cabinets  
Glazed Ceramic (tile)  
Refrigerator Exteriors  
Toilet Seats  
Ceramic Floor  
Glazed Porcelain (tile)  
Salad Bar  
Sneeze Guard  
Tools  
Chairs  
Laminate (surfaces)  
Sealed Granite  
Urinals  
Chrome  
Sealed Marble Vinyl (tile)  
Clean up Carts  
Linoleum  
Sealed Quartz  
Washable Walls  
Microwave Oven  
Wheelchairs  
Door Knob

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Mirror  
 (Exterior) Sealed Stone  
 Sealed Stone Interiors  
 Outdoor (patio) furniture  
 Shower Curtain (plastic)  
 Wrestling Mat

Additional Graphics (May Be Used On Product Label):



### Optional Marketing Claims

- Kills Germs
- Kills bacteria, specified viruses\*, bacteria and fungi^
- Spray directly onto surface to be treated
- Easy to use, apply to surface and allow to air dry
- Ideal for commercial kitchens, bathrooms, laundry rooms, and locker rooms
- Kills odor causing bacteria, mold, mildew, and algae caused by flooding, water leaks, storm damage, or excess dampness
- Contains no phosphates
- Dye and Fragrance Free
- Hard Surface Disinfectant
- ClO<sub>2</sub> Generating System
- Formulated for Hospital Use
- No Rinse Formula
- No Rinse Required
- Leaves No Residue
- No Harmful Residue
- Just Add Water
- Selective Micro Technologies Logo
- Questions? Call (855) 256-8299
- Scan for more Info (QR CODE)
- Facebook, You Tube, Twitter Logos
- Patent: 6002466 B2
- See full directions for specific uses and precautionary statements.
- Use as Refill for *Selectrocid*<sup>®</sup> (Description) and (Part #), and/or mop bucket, and/or pressure sprayer, and/or pump sprayer.

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• \*See Page 6, ATCC designation for viruses claimed as disinfection

- ^Kills Athlete's Foot fungi

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**[FOR USE WITH SELECTIVE MICRO FDA-APPROVED FOOD CONTACT APPLICATIONS (FCNs): 445, 645, 1578]**

**This product can be used according to the following FDA-approved methods:**

## **Technical Bulletin 2016, Selectroicide A-Series**

### **Antimicrobial Food Additive Reduces Microbial Contamination**

**Generates Chlorine Dioxide to Control Food-Spoilage and Pathogenic Microorganisms  
on Processed Fruits and Vegetables and During Poultry Processing**

To activate: See "Directions for Use" on package label

*Use the following volumes of potable water to achieve the desired concentrations  
of chlorine dioxide inside a closed container:*

For This Concentration of Chlorine Dioxide	Immerse <i>Selectroicide</i> ® A1 in this amount of clean, potable water for at least two (2) hours	Immerse <i>Selectroicide</i> ® A5 in this amount of clean, potable water for at least two (2) hours	Immerse <i>Selectroicide</i> ® A12 in this amount of clean, potable water for at least two (2) hours
500 ppm	0.2 liters	9.5 liters	24 liters
500 ppm	0.05 gallons	2.5 gallons	6.3 gallons
10 ppm	10 liters	475 liters	1200 liters
10 ppm	2.5 gallons	125 gallons	315 gallons
5 ppm	20 liters	945 liters	2400 liters
5 ppm	5.5 gallons	250 gallons	635 gallons
3 ppm	33 liters	1570 liters	4000 liters
3 ppm	9 gallons	415 gallons	1055 gallons

Do not remove *Selectocide*® A12 envelope from container of water prior to 2 hours.

Discard the spent A12 [A1, A5] envelope (follow disposal instructions on package label), and mix solution gently prior to use.

Do not reuse A12 [A1, A5] envelope.

Check concentration of solution using *Selective Micro*® Chlorine Dioxide Test Strips.

(See box below for instructions if check indicates concentration lower than desired)

Record activation date and concentration on stick-on label and affix to storage container.

See package label “Directions for Use” for storing unused solution; use solution within 15 days of activation.

## **DURING USE (DILUTING, APPLYING, OR WORKING WITH ACTIVATED PRODUCT):**

1. Always work in well-ventilated area and avoid inhaling fumes of activated solution.
2. Wear protective gloves if hands will come in contact with activated solution.
3. Respiratory protection is not required under the limited exposure conditions of most normal use patterns.  
However, wear a NIOSH/MSHA-approved respirator under the following conditions:
  - a. when applying activated solution with a high-pressure sprayer
  - b. when working with the activated solution for an extended period of time in a closed facility or in a poorly-ventilated area
  - c. when normal workshift duties entail uninterrupted periods of applying the activated solution with mop, sponge, or sprayer
  - d. when opening vessel containing stock activated solution (at 500 ppm)
  - e. if OSHA inhalation exposure limits are reached or exceeded (see MSDS).
4. Do not use product in a manner inconsistent with the label.

## **IF TEST STRIPS INDICATE CONCENTRATION (PPM) LOWER THAN DESIRED:**

1. Check expiration date on Test Strips container. If expired, then recheck using fresh Test Strip from a container that has not reached its expiration date.
2. If the original container has not expired OR if the recheck indicates a lower-than-desired concentration, THEN DO ONE OF THE FOLLOWING:

2a. If the application solution was prepared directly to the end-concentration (not diluted from a higher concentration), discard the solution and activate a fresh (unused) *Selectroside*® A12 [A1, A5]. Recheck concentration after waiting the prescribed time to activation.

**OR**

2b. If the application solution was prepared by diluting a solution of higher concentration, add small amounts of the higher-concentration solution to the application solution—about 10% of the volume of the application solution at a time—until the Selective Micro® Chlorine Dioxide Test Strip indicates the desired concentration. Stir or mix the solution gently after each addition. Use a fresh (unused) Test Strip for each test.

## **RECOMMENDED SPECIFICATIONS FOR CONTAINERS USED WITH *SELECTIVE MICRO* PRODUCTS**

*For Use in Generating or Storing Activated Solutions*

- The container should be—or be comparable to—a UN-approved, liquid-resealable containment incorporating a gasket-sealing surface and locking mechanism.
- Construction should be of dark or opaque/UV-blocking (preferred) oxidation-resistant plastic or glass. Some materials recommended include:
  - High Density Polyethylene (HDPE)
  - Polypropylene (PP)
  - Polyethylene Terephthalate (PET)(PETE)
  - Polyvinyl Chloride (PVC)
  - Polycarbonate (PC)
  - Glass (UV-blocking preferred)
  - Gasket materials; silicone, viton or EPDM

Users without containers comparable to the above may contact Selective Micro Technologies for recommendations or to purchase containers for their applications.

Use *Selective Micro® Chlorine Dioxide Test Strips* to verify initial concentrations and ensure residual chlorine dioxide concentrations of no greater than 3 ppm in the water. Spray or dip processed fruits and vegetables, processed mushrooms, fungi and truffles, red meat, red meat parts and organs, pork and seafood ensuring visible wetness for at least one (1) minute. See Technical Bulletin for dilution directions for 3, 5, and 10 ppm and for other directions and application specifics.

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APPLICATIONS FOR FRESH-CUT FRUIT AND VEGETABLES

This product may be used to reduce spoilage and pathogenic microorganisms on cut or processed fruits and vegetables in food processing facilities, such as during flume and washing operations, and in other commercial food preparation areas. Depending on decontamination needs/contamination levels, use at concentrations up to 10 ppm to produce the desired microbial reductions on processed fruits and vegetables.

1. Activate *Selectroicide®*A12 [A1, A5] according to “Directions for Use” on package label.
2. Dilute directly to desired application concentration (up to 10 ppm) in accordance with the instructions in table on page 1 of this technical bulletin

**OR**

Prepare a 500 ppm solution according to table 1 and then use a dilution device appropriate to the end concentration desired:

- For 10 ppm, use a 1:50 dilution device (one part 500 ppm solution to 49 parts water)
  - For 5 ppm, use a 1:100 dilution device (one part 500 ppm solution to 99 parts water)
  - For 3 ppm, first dilute the 500 ppm solution to 300 ppm by adding 2 parts water to 3 parts 500 ppm solution; then use a 1:100 dilution device (one part 300 ppm solution to 99 parts water)
3. Spray or dip processed fruits and vegetables, ensuring visible wetness for at least one (1) minute, and follow by canning, blanching, or cooking, or consumed as fresh cut fruits or vegetables. Potable water rinse is not required, but may be applied if desired. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
  4. Use *Selective Micro® Chlorine Dioxide Test Strips* to verify initial concentrations and ensure residual chlorine dioxide concentrations of no greater than 3 ppm in the water.
  5. Dispose of *Selectroicide®*A12 [A1, A5] package and spent envelope according to instructions on package label.
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APPLICATIONS FOR POULTRY PROCESSING

This product may be used to reduce spoilage and pathogenic microorganisms on poultry carcasses. Depending on decontamination needs/contamination levels, use at concentrations up to 10 ppm for one (1) minute to produce the desired microbial reductions on poultry carcasses.

1. Activate *Selectroicide®*A12 [A1, A5] according to “Directions for Use” on package label.
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2. Dilute directly to desired application concentration (up to 10 ppm) in accordance with the instructions in table on page 1 of this technical bulletin

***OR***

Prepare a 500 ppm solution according to table 1 and then use a dilution device appropriate to the end concentration desired:

- For 10 ppm, use a 1:50 dilution device (one part 500 ppm solution to 49 parts water)
  - For 5 ppm, use a 1:100 dilution device (one part 500 ppm solution to 99 parts water)
  - For 3 ppm, first dilute the 500 ppm solution to 300 ppm by adding 2 parts water to 3 parts 500 ppm solution; then use a 1:100 dilution device (one part 300 ppm solution to 99 parts water)
3. Spray or dip processed poultry, ensuring visible wetness for at least one (1) minute. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
  4. Use Selective Micro<sup>®</sup> Chlorine Dioxide Test Strips to verify initial concentrations and ensure residual chlorine dioxide concentrations of no greater than 3 ppm in the water.
  5. Dispose of the *Selectocide*<sup>®</sup> A12 [A1, A5] package and spent envelope according to instructions on package label.

## APPLICATIONS FOR FUNGI, MUSHROOMS, AND TRUFFLES

This product may be used to reduce spoilage and pathogenic microorganisms on fungi, mushrooms, and truffles. Depending on the decontamination needs/contamination levels, use at concentrations up to 10 ppm for one (1) minute to produce the desired microbial reductions on processed mushrooms, fungi, and truffles.

1. Activate *Selectroicide*® A12 [A1, A5] according to “Directions for Use” on package label.
2. Dilute directly to desired application concentration (up to 10 ppm) in accordance with the instructions in table on page 1 of this technical bulletin

### **OR**

Prepare a 500 ppm solution according to table 1 and then use a dilution device appropriate to the end concentration desired:

- For 10 ppm, use a 1:50 dilution device (one part 500 ppm solution to 49 parts water)
  - For 5 ppm, use a 1:100 dilution device (one part 500 ppm solution to 99 parts water)
  - For 3 ppm, first dilute the 500 ppm solution to 300 ppm by adding 2 parts water to 3 parts 500 ppm solution; then use a 1:100 dilution device (one part 300 ppm solution to 99 parts water)
3. Spray or dip processed fungi, mushrooms, or truffles, ensuring visible wetness for at least one (1) minute, and follow by canning, blanching, or cooking, or consumed as fresh fungi, mushrooms, or truffles. Potable water rinse is not required, but may be applied if desired. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
  4. Use Selective Micro® Chlorine Dioxide Test Strips to verify initial concentrations and ensure residual chlorine dioxide concentrations of no greater than 3 ppm in the water.
  5. Dispose of *Selectroicide*® A12 [A1, A5] package and spent envelope according to instructions on package label.
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## APPLICATIONS FOR MEAT AND PORK PROCESSING

This product may be used to reduce spoilage and pathogenic microorganisms on red meat (including meat parts and organs), processed, comminuted, or formed meat products, and pork. Depending on the decontamination needs/contamination levels, use at concentrations up to 10 ppm for one (1) minute to produce the desired microbial reductions on red meat (including meat parts and organs), processed, comminuted, or formed meat products, and pork.

1. Activate *Selectroicide*® A12 [A1, A5] according to “Directions for Use” on package label.
2. Dilute directly to desired application concentration (up to 10 ppm) in accordance with the instructions in table on page 1 of this technical bulletin.

### **OR**

Prepare a 500 ppm solution according to table 1 and then use a dilution device appropriate to the end concentration desired:

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- For 10 ppm, use a 1:50 dilution device (one part 500 ppm solution to 49 parts water)
  - For 5 ppm, use a 1:100 dilution device (one part 500 ppm solution to 99 parts water)
  - For 3 ppm, first dilute the 500 ppm solution to 300 ppm by adding 2 parts water to 3 parts 500 ppm solution; then use a 1:100 dilution device (one part 300 ppm solution to 99 parts water)
3. Spray or dip processed red meat (including meat parts and organs), processed, comminuted, or formed meat products, or pork ensuring visible wetness for at least one (1) minute, and follow by potable water rinse or by blanching, cooking, or canning. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
  4. Use Selective Micro® Chlorine Dioxide Test Strips to verify initial concentrations and ensure residual chlorine dioxide concentrations of no greater than 3 ppm in the water.
  5. Dispose of *Selectroicide*® A12 [A1, A5] package and spent envelope according to instructions on package label.

## APPLICATIONS FOR SEAFOOD PRODUCTS

This product may be used to reduce spoilage and pathogenic microorganisms on seafood. Depending on the decontamination needs/contamination levels, use at concentrations up to 10 ppm for one (1) minute to produce the desired microbial reductions on seafood.

1. Activate *Selectroicide*® A12 [A1, A5] according to “Directions for Use” on package label.
2. Dilute directly to desired application concentration (up to 10 ppm) in accordance with the instructions in table on page 1 of this technical bulletin.

**OR**

Prepare a 500 ppm solution according to table 1 and then use a dilution device appropriate to the end concentration desired:

- For 10 ppm, use a 1:50 dilution device (one part 500 ppm solution to 49 parts water)
  - For 5 ppm, use a 1:100 dilution device (one part 500 ppm solution to 99 parts water)
  - For 3 ppm, first dilute the 500 ppm solution to 300 ppm by adding 2 parts water to 3 parts 500 ppm solution; then use a 1:100 dilution device (one part 300 ppm solution to 99 parts water)
3. Spray or dip seafood or Use product as an agent used in water and ice that are used to rinse, wash, thaw, transport, or store seafood ensuring visible wetness for at least one (1) minute, and follow by potable water rinse or by blanching, cooking, or canning. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
  4. Use Selective Micro® Chlorine Dioxide Test Strips to verify initial concentrations and ensure residual chlorine dioxide concentrations of no greater than 3 ppm in the water.
  5. Dispose of *Selectroicide*® A12 [A1, A5] package and spent envelope according to instructions on package label.

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